PENCIL POINTS

VOLUME V FEBRUARY 1924 NUMBER 2

THE HUMAN ELEMENT IN THE ARCHITECT'S ORGANIZATION

THE interdependence of the architect and the members of his organization makes the human element of the greatest importance. With team work all along the line great things can be accomplished, but with an organization in which there is indifference or friction on the part of various members there is inevitably a serious loss of efficiency. Systems of office management, record keeping, the best of mechanical equipment, all valuable aids in the conduct of an office, are of little avail where the right spirit does not exist. The men may put in the time over their tasks day after day, busy every minute and still fail to produce the results obtainable where there is *esprit de corps,* the spirit of team work, a sense of unity of purpose and of interest, a feeling of responsibility for and pride in the work of the office on the part of every member of the organization.

The January issue of this journal was devoted to the subject of Office and Drafting Room Practice, and the contributions were largely given over to describing the *machinery* of office organization. Good and necessary, but useless without the driving force —spirit. Now we are going to take up the more important matter of "The Human Element in the Architect's Organization," devoting our April issue to this matter. In that issue we want to open up this subject and bring out constructive suggestions from all over the country, with the purpose of providing a basis for improvement.

First and foremost we are going into this with the attitude that all members of an architect's organization from the architect to the office boy have a common interest—the welfare of the business from which they all derive their incomes—it would seem that this is an obvious fact. Furthermore, we are going into it on the basis that there is room for improvement on the part of every member of the organization, including the architect, in a great many offices. But we mean to assume that everybody has a sincere desire to contribute to the general improvement by improving himself as well as the other fellow. Let us hold the ideal of an organization in which there is community of interest and let us measure existing conditions against that standard, striving to see clearly the means by which an approximation to our ideal can be achieved. This will involve laying bare cases that are not by any means ideal, but let us do it in a constructive spirit.

Now, in going about this it will not avail us anything to say over and over that team work is desirable, having said it once and accepted the fact, let us have the statement of ways in which this has been brought about and suggestions of a practical nature. We want you to give the benefit of your observation and experience to the other readers of PENCIL POINTS by writing a letter for publication. We want experiences and ideas, and names will *not* be used without special permission of the writers of these contributions, so no embarrassment need be felt—speak out, architects, draftsmen, specification writers, let's talk this over together.

We are now making the announcement of this subject for discussion in our April issue in order that we may have a mass of material in hand long enough before the date of publication to enable us to present a discussion that will be of the greatest possible help in bringing about the best conditions within the architectural profession, for the good of everyone.

In this we look for the same ready and hearty response we have had in the discussion of other subjects. The more letters we receive the greater will be the fund of ideas from which all may draw. Write us an informal letter as short or as long as you please, but let us hear from you.

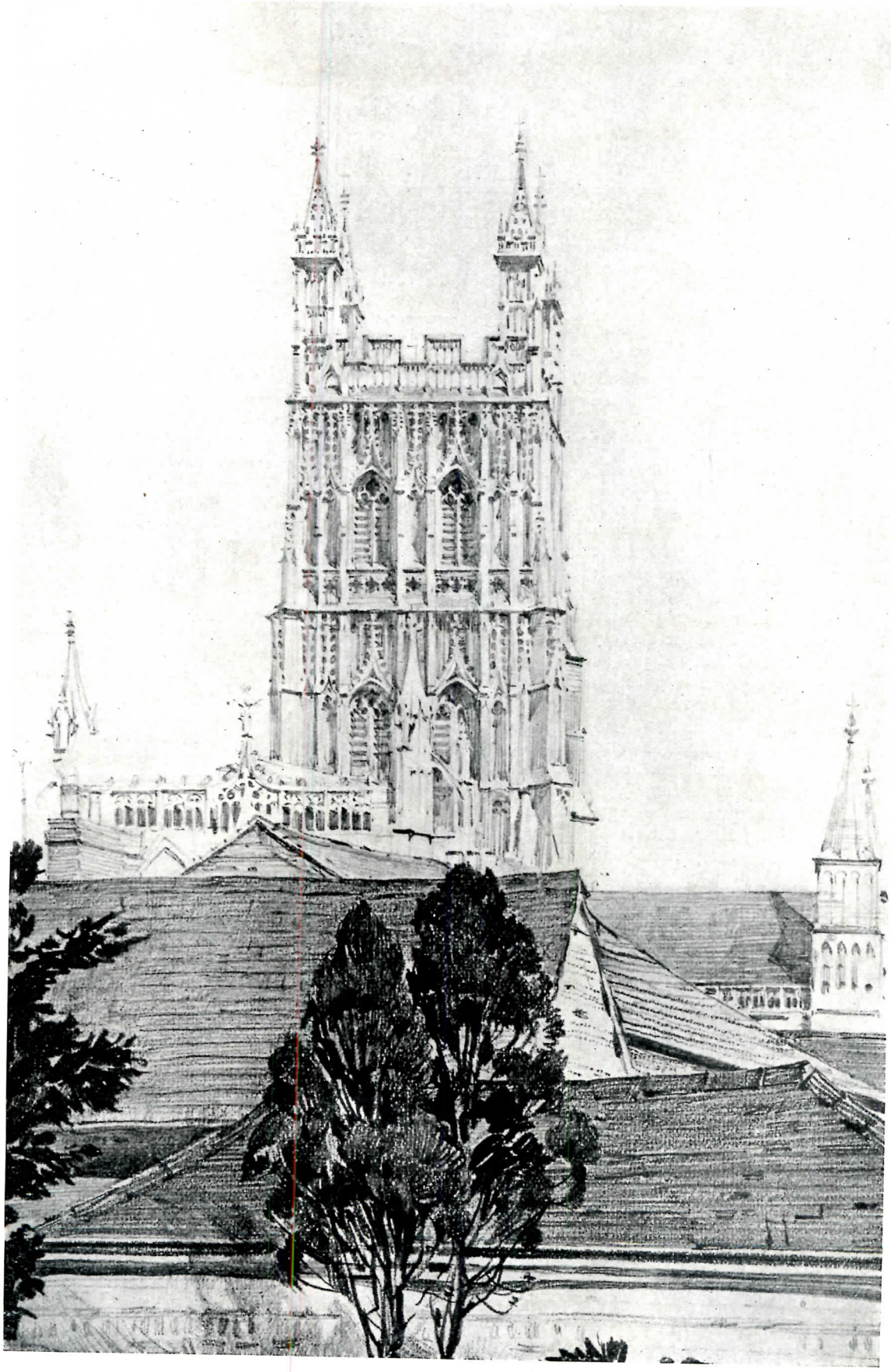
THE BEAUX ARTS BALL

ON THE evening of Friday, February 8, beginning at ten o'clock, the Beaux Arts Ball, *Carnival de Paris,* will be given by the Society of Beaux Arts Architects at the Hotel Astor, New York City. This ball will be for the benefit of the students in architecture, painting and sculpture of the Beaux Arts Institute of Design.

Fancy costume will be obligatory and must be worn throughout the evening. Guests are urged to form costume groups in order to enhance the effectiveness of the *Grand Defilé* which will take place just before supper.

The carnival will include side-shows, contests, acts, etc., a veritable Fête de Neuilly executed in the true Parisian spirit to the music of several orchestras and bands under the direction of Markels.

Applications for admission tickets and reservations for boxes and tables, accompanied by check, should be sent Kenneth M. Murchinson, 101 Park Avenue, New York City.



Pencil Drawing by Kenneth Conant, Gloucester Cathedral.
(Reproduced at the exact size of the Original)

DRAWING IN PENCIL

BY KENNETH CONANT

In this article Mr. Conant describes his method of drawing and discusses different methods of making pencil sketches. Mr. Conant is an instructor at Harvard University, has spent much time sketching abroad and was the winner of the first prize in the Birch Burdette Long Sketch Competition for 1922. Readers of PENCIL POINTS *are familiar with Mr. Conant's excellent pencil sketches through the reproductions that have appeared from time to time in this journal.*—ED.

ALMOST all of my own drawings have been made in connection with studies in architectural history, and have therefore a meticulous character. This is the result of my inclination and interest rather than of any idea that an infinity of fine detail makes a good drawing. It takes more art, I think, to express a thing in two lines than to do it in twenty; and a competent and stylish drawing in very simple terms calls for just as intimate an acquaintance with the subject as a much more elaborate one. The thought back of a worth-while simple drawing must be direct and mature, and the ability to carry out such a thought is a rare gift.

The fact that in a drawing containing much incident and detail the interest is more diffused than in a simpler drawing, and the individual lines are thus less in evidence, should not blind the artist to the fact that, if his work is to be distinguished, each line should be careful and appropriate. There is, of course, a kind of easy "digital rapture", which comes with training and skill such that an experienced draftsman does not actually think of every line, any more than an experienced pianist thinks of every note in a trill. It remains nevertheless true that the trained artist's individual lines and tones have beauty and character, and that his drawing is a sum of beautiful lines. The man whose hand is a less spontaneous servant of his impressions and emotions must be more careful in making the separate elements—lines—of which his drawing is built. A charming teacher whom I know sometimes says of student work, "More lines than thoughts"; there is no more polite or more definite way of condemning a drawing (Figure 1).

Clearly the execution should be uniformly good over the whole surface of a drawing. It is a great mistake to suppose that the odd corners, away from the center of interest, may be carried out carelessly. In the eyes of a good critic any careless work detracts from a drawing. Nothing has a place in a composition which does not contribute to its clearness and beauty.

Need the fact that a drawing should be uniformly good execution entail its being an "imitation photograph"? Not at all, though that is a danger. A photograph gives the evident facts about an arrangement of objects—gives them quickly, accurately, and cheaply. Except for practice, it is not sensible to set out to do this work by hand, a much more uncertain and laborious process. Any drawing worthy of the name is an interpretation. Those whose work gives us the facts without interpretation are organ-grinders in art. The artist's business is to choose a subject and render it expressively, and then to arrange the subsidiary visual material around it so as to give it an orderly and interesting setting. The artist who really feels and understands his subject (*nothing is more necessary*) will be able instinctively to find the center of interest, the "eyes" of it, and to compose the surroundings to lead up to it and give it the atmosphere and value desired (Figures 2, 3, 4, 5). I do not mean that the total effect need be very different from what the artist sees. But I do mean that what appears in a picture should be recast according to an idea, in order to make the composition an orderly and organized whole. This is the province of personality and interpretation, and it is the way to avoid making imitation photographs. We may use the parallel of language, which expresses another kind of idea in another way. Good speakers and writers are able to choose a suitable subject and make it lucid and interesting by the clearness of their own grasp, by their ability to arrange their material so as to bring out the principal point, and by their pleasing address. That is the case of a competent artist exactly.

In my own work I do not hesitate to draw from two or more points of view (not, of course, widely separated), if it helps to arrange the picture better, or to make the planes read more easily. This may be very convenient in a street scene, for example, where parts of an uninteresting building in the foreground may interfere with a delightful part of the background in an otherwise agreeable view (Fig. 4). It is usually possible to manoeuver so as to avoid such a difficulty. The picture then becomes a composite one, and, in a strict sense, untruthful. But it is to be remembered that our impressions of most things are composite, the result of seeing them from many points of view. In the same way, I do not hesitate to use shadows as they appear on the same building at different hours if it helps the composition in unity or interest, and does not bring about a manifest inconsistency. If the shadow of a buttress on a tower is prettiest at half-past one and the light effect on a neighboring chapel is handsomest at half-past two, I am not likely to let either effect go, as the camera would have to do. A good rule to follow is to do nothing which will seem obtrusively out of the way to one who knows well and cares for the subject of the picture.

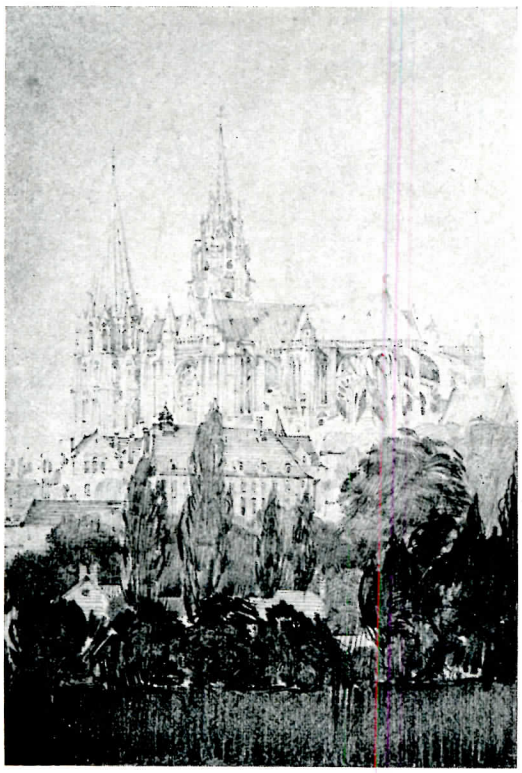


Figure 1

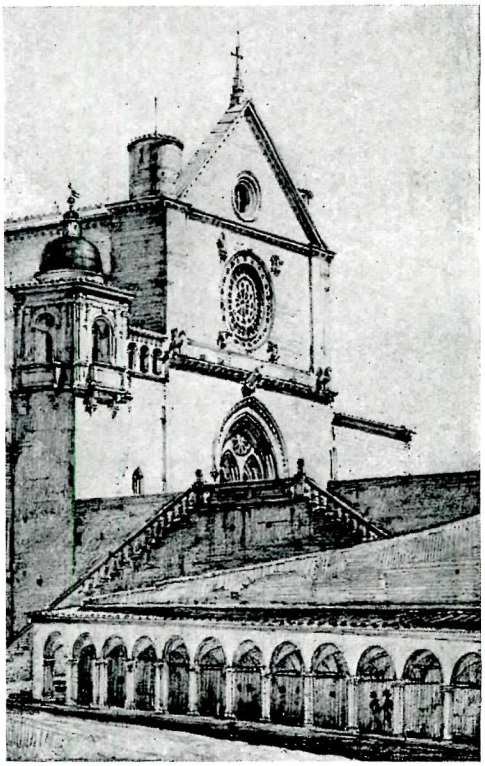


Figure 5

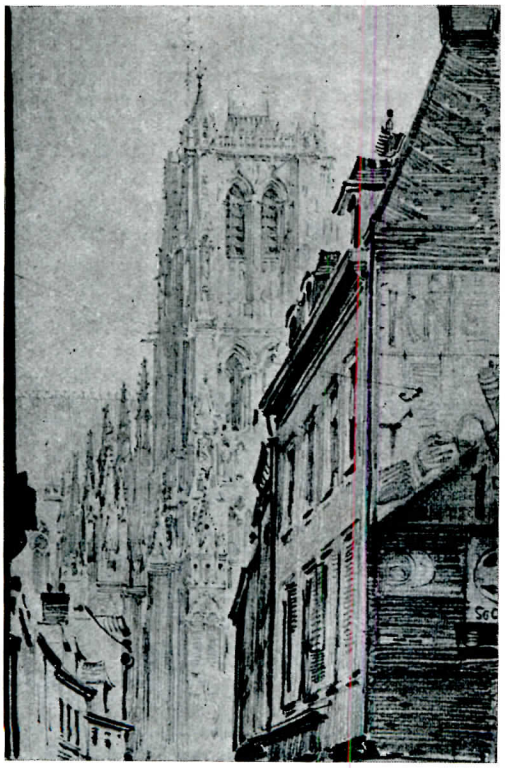


Figure 4

Figure 6

Figure 1. *Drawing spoiled by careless foreground. Figure* 4. *Poor composition. The foreground is too obtrusive, and the eye is not led easily into the picture. Figure* 5. *Poor composition. The inclined lines in the foreground are not pleasantly related, and the eye does not find its way easily from them to the facade above. Figure* 6. *Poor composition. Uninteresting pattern, not relieved by play of light or contrast.*

Figure 2. Poor composition. The visual material is scattered around the edge of the picture, leading up to nothing, with the result that the picture is blank and uninteresting.

Many young draftsmen try to get personality into their pictures by trickiness of line and handling. That is insincere, and an offense against good craftsmanship. The artist's approach to his work should be straight-forward. Attempts to make "peppy" drawings with an exaggerated technique may well deform or defer the ripening of a genuine personal style. Drawings which depend for their character on imitation of the mannerisms of admired artists have also undoubtedly specious appeal. The peculiarities which make up a personal style are determined by the great interests, and, quite as much, by the limitations of the artist. A man interested in archaeology who draws figures badly will naturally put his best efforts into the architecture he is rendering, to the neglect of his figures. If people like his architectural work and encourage him; his best efforts will go to improving that, his figures will come to be incidental, and the sentiment of his work a detached one. The cartoonist and lover of life will make drawings of a much less abstract character; his streets will flow with a living and human tide; in his architectural work we need not look for the soberer qualities which charm us in the other man's work. The man who draws best with a short staccato line will find himself interested in drawing effects which can best be rendered by such a line. The man who draws boldly will avoid intricate and delicate effects. The basis of good drawing must be easy and natural workmanship rather than imitation.

Any drawing, even the most studied imitation photograph, must necessarily be much simplified in comparison with nature. The range of possibilities is at best very much less—that is to say, no drawing can possibly have the full vivacity and complete detail of nature. A vivacious drawing is so because the detail is simplified, or so artfully disposed that it does not detract from the directness of appeal of the drawing. Refreshing directness comes most often in drawings which are quickly, easily and directly done. A drawing with a great deal of detail takes longer to carry out, and it can never have anything approaching the contrasts of nature. Artists choose between the alternatives according to temperament.

We all want to make our drawings as vivacious as may be according to our styles. There are several modes of drawing which are useful in different ways to bring about the simplification on which vivacity depends.

First, drawing in the manner of delineation, using no tones, no shadows—lines. Delineation gives the essence, a shorthand interpretation of the subject.

Second, form drawing, using shadows only and supplementing the work with lines where necessary. This is, in effect, drawing all things as if they were made of white plaster, paying no attention to local colors. Thus a bronze statue and a plaster cast of

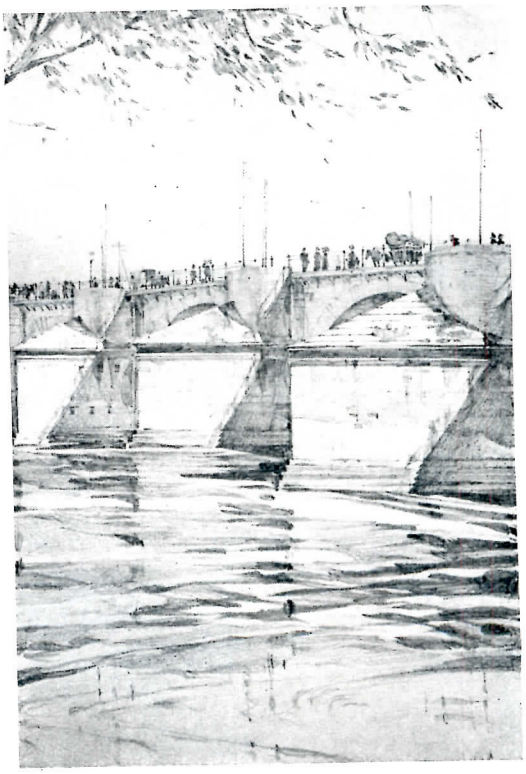


Figure 3. Poor composition. Nothing leads into the picture. It is actually difficult to make out what the subject of the picture is because of the lack of setting.

the same would appear just alike in a form drawing. Form drawings are particularly successful in sunlight effects, because they present the subject in terms of its own shadows; the unshaded portions of the drawing seem, by contrast, to be bathed in sunlight.

Third, color value drawing with shadows expressed and local color indicated by grey tones, light or dark. In a color value drawing the statue mentioned above would be darker than the cast because of the difference in the color of the material. A color value drawing is more or less a photograph, but it need not have the infinite value gradations of a photograph. Much more effective drawings can be made by summarizing the values, reducing them (in general effect) to three, or at most four. The drawing is certain to gain an incisiveness by this sacrifice; the eye will find its way about in the composition much more easily. The appeal, particularly from a distance, will be much more forceful. This is the reason why well-handled drawings make so much better wall decorations than photographs (where the directness is frittered away in nuances.)

Fourth, a drawing of the first two classes may be tinted. Admirable shorthand color effects are obtainable, using a few well chosen colors. Good drawings of this type are distinguished by a free and easy dash because the vivacity of the line is not obscured by subtleties of color-modeling.

Fifth, drawing or painting in full color, which is outside my subject.

Now while a drawing may be carried out consistently in any one of these modes, their great use is in suggesting simplification which may be employed to make the rendering or the composition clearer. For example, I, with my preference for out-door subjects in sunlight, usually find myself making a form drawing of the kernel of my picture, using delineation and color value elsewhere as the composition dictates. A dark object which, rendered dark, would detract from the center of interest, I render by delineation, so that it contributes what it has that is useful to the picture; the rest is left out. I may render a lacy grey tower in form drawing, which leaves the stones white in sunlight, and render grey houses at its base in color value, making the sunlit stones grey in this case because the contrast is valuable; and I may leave the grey street in front of them white (delineation) if this detaches the houses better from the foreground. The convention of rendering in different modes can thus help in two ways—first, in making the composition-pattern agreeable—that is, making the arrangement of light and dark spots within the frame agreeable quite irrespective of what they represent or where it is with reference to the picture-plane. No drawing can be called a success which is lacking in this particular (Fig. 6). Modernist drawings, ordinarily so notably unsatisfactory with regard to mere representation, often have piquant and interesting arrangements of their elements considered as spots. A stupid composition-pattern makes a stupid drawing even though the workmanship is good. There is, of course, no recipe or patent way for making good compositions. But it is true that a good composition is one in which the various areas or parts are agreeable shapes thoughtfully arranged, so that the eye finds its way easily to the principal subject (Fig. 5). Some compositions may be good and dull, like a prosy preacher; others may be good and interesting, like a fire-eating evangelist. The difference is generally to be found in the general pattern or parti—dull parti, dull picture, interesting parti, entertaining picture.

The second way in which drawing in different modes can help the artist is in expressing the planes in the picture, giving it depth and atmosphere. Color value, which gives the most information and the greatest contrasts, may be used in the foreground, where the form and details of objects are clearest. Form drawing (less complete) may be used for the middle distance, where form and detail are still easily distinguishable; more distant objects may be rendered by delineation.

These two ways of using the modes may conflict in a given picture; then it is for the artist to use his artistry. The usual scheme is to subdue the contrasts in succeeding planes into the distance, as in nature; yet occasionally, when it is desired to focus attention on a single spot in the distance, the reverse scheme is employed.

In my drawing of Gloucester Cathedral, reproduced on page 26, I carried out the upper stage of the tower and its pinnacles in form drawing to get as delicate and sunny an effect as possible. The lower stage is in color value, to give a little more solidity, to set off the contrasts above and the little turret in front. This pair of turrets is in delineation—the one just referred to left white in order to detach it as much as possible from its background. I did its companion in delineation because I did not want to draw too much attention to it nor to continue up the dark band formed by the tree at the left of the picture. I made the shadows on the little connecting gallery sharper than those on the tower because the gallery is nearer.

The four parallel roofs are carried out in color value, but successively paler in tone to give the effect of distance. The other roof is lighter because the sun strikes it more directly, and the lighter tone makes a pleasant break in that part of the drawing. I can remember working out the arrangement of these roofs with much care in order to get them to "read" easily. It is not an accident that the ridge of the nearest one cuts into the eaves shadow just above it, that the second ridge is higher than that of the church transept, or that the tree goes a little higher still. I used three or four points of view, all within a few yards of one another, but kept fairly close to what I saw. The church is meant to tell more or less as light a tone; the roofs in the middle distance make a second and darker tone; the trees in the foreground tell as a third and darkest tone.

(*Continued on Page* 36)

THE SKETCH PROBLEM, PART III

The First Preliminary Competition for the Paris Prize

BY JOHN F. HARBESON

In this article Mr. Harbeson treats the sketch problem in the same manner in which he has discussed other problems in the pages of this journal under the general heading "The Study of Architectural Design."

IF WE consider now the plan sketch problem we find it similar in some ways to the decorative sketch problem, and very different in other ways.

The parti becomes most important now: the parti *must* be a solution of the problem, satisfying all its conditions; and this satisfaction is now quite largely a question of logic, of reasoning, and no longer a question of individual taste, as was the case, very frequently, in the decorative sketch problem. The importance of a good parti cannot be too much stressed; the man who has the ability to find a good parti can be a successful architect, even if he cannot draw—he can hire men to do his drawing. It is not so easy to hire men to find a parti.

The preliminary work in an esquisse is to understand the program and find a solution for it. Become thoroughly familiar with the program; read it several times, paying attention to every word, for each word is put in for some particular purpose. Then separate what is important from the minor requirements—try to find the spirit of the problem: a military barracks, for instance, must have a different character from a seashore hotel.

One looking at a sketch problem, without having read the program, should be able to tell what general type of building it is. This means of course, that to do a good sketch problem you must know the general character of different types of buildings. An industrial building, for instance, will have a rectangular outline, with businesslike poche—no elaborate gardening about it. (Figs. 24 and 25). Then you must determine under what heading the requirements will fall, and this means more than just a casual setting down of the requirements. In a "technical school"—such as Figs. 22 and 23—(January PENCIL POINTS) there will be required several classrooms, but some of these classrooms will be just like the classrooms where any other teaching is done—language, mathematics, or history, for instance—while others will be classrooms for technical teaching, and will be quite different. In a sketch problem, such differences as these are emphasized.

Fig. 27. Villa Palmieri—Garden Front.

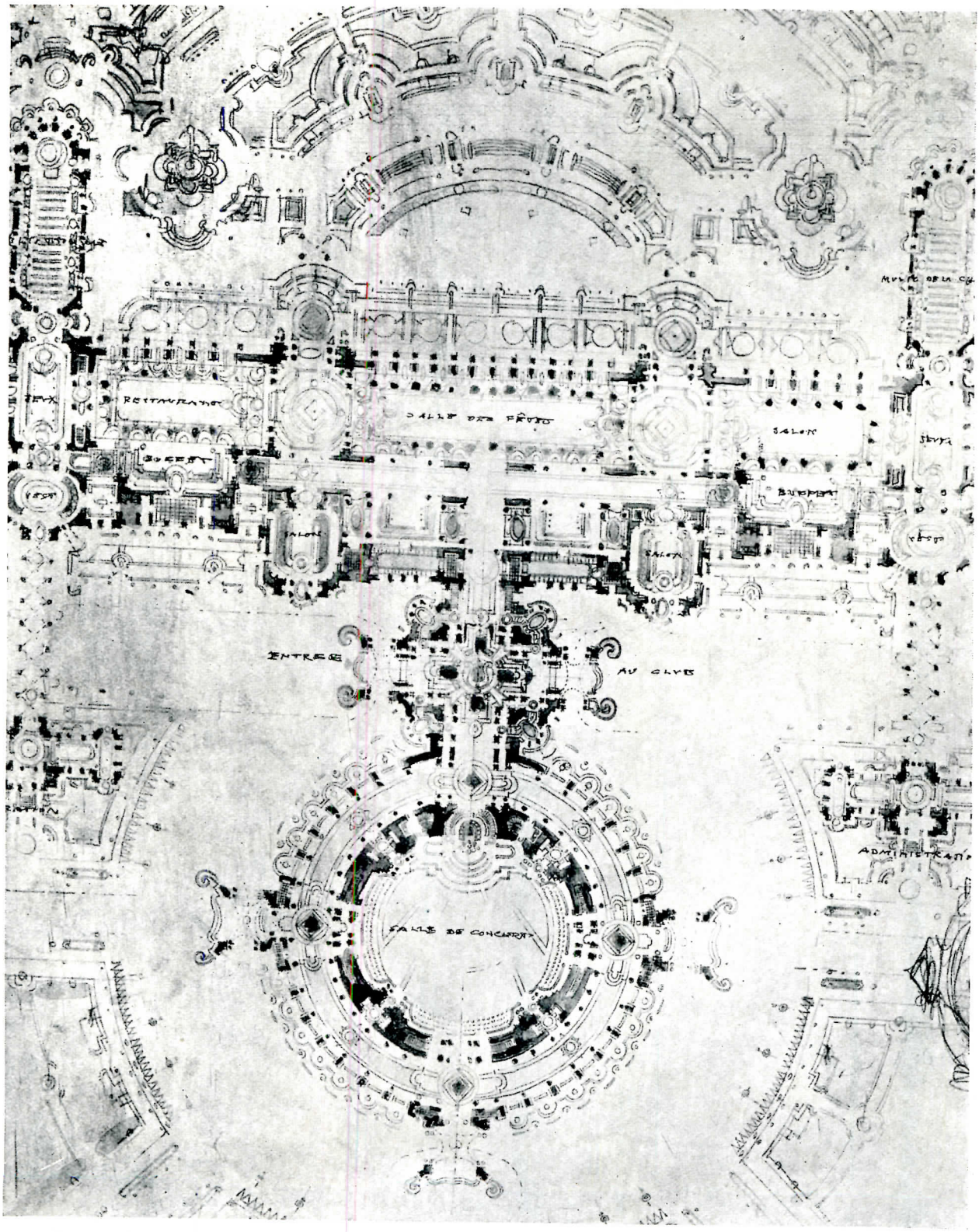


Fig. 31. *Detail of Design for a Concert Hall, by D. M. Kirkpatrick, Concours Labarre, Ecole des Beaux Arts.*

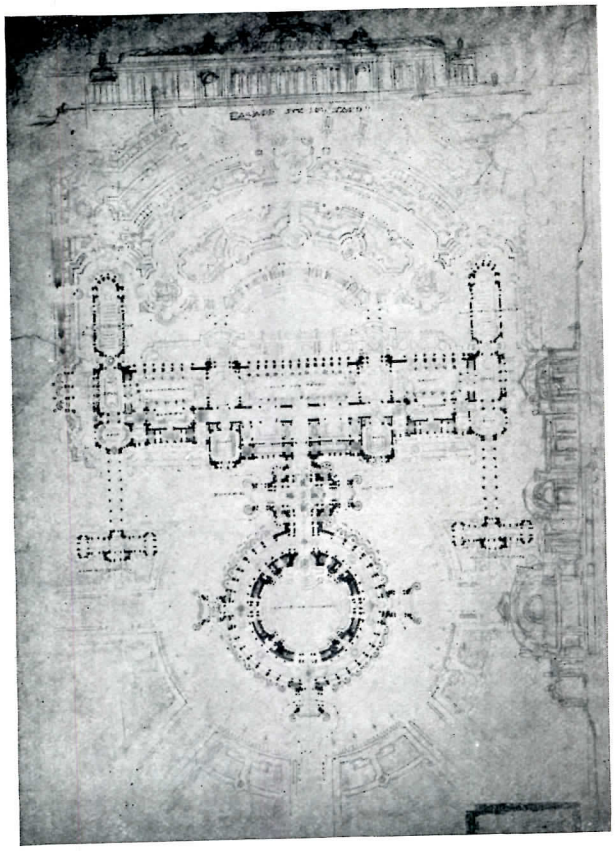


Fig. 30. Design for a Concert Hall, by D. M. Kirkpatrick, Concours Labarre, Ecole des Beaux Arts.

In a sketch problem you must force the requirements a little to make them more apparent. It is just as in a poster, one exaggerates the drawing to make it "carry", to force an idea. You should be able to read an esquisse from a distance: it should be clear, and show the details of the program without requiring one to take the program and check it out to see if all the requirements are met.

Another important item in finding a parti is to take account of location. Whenever a program mentions the character of the site (on a hillside, on flat ground, on the shore of a lake)—that is a hint to especially emphasize this requirement. Make it absolutely clear—to some extent exaggerate it.

And as it is necessary to think clearly to find a parti, eliminate the unessential: do not worry, in an esquisse-esquisse, whether or not "the office of the manager is next to the general office": you cannot go into detail.

It is important to get the proper scale at the beginning; mark in the corner of your paper—the backing paper over which you make your first studies—a drawn scale, 10, 20, 50 feet, so that you will always have an idea of size before you. Once you have this in mind you do not need again to use a scale until you go to final scale, when the process is repeated.

If your drawing is "out of scale" at all, it is better that it be a little below scale than otherwise: this will make the building look larger than it is.

We have already spoken of the division of time in a sketch problem—how long to spend on the study of the program, on study at small scale, when is the proper time to go to large scale. Each man has a different way of working—and at different speed. After you have done several sketch problems, you will know how long it takes to make the final drawings, and you must leave enough time for this purpose. It is largely a personal question, and no fixed rules can be given; the presentation, however,—the drawing at final scale—will take by far the largest part of the time, two-thirds or more.

Make sketches at a small scale to find the solution—a parti that will "work". Do not be satisfied if it does not, for no amount of presentation will disguise this fact.

Then go at once to the final scale. Put down the size of the lot, the areas of any rooms given, and again a visual scale.

Now with charcoal block in your scheme, get the big picture—the big masses.

One thing which is important (and it is important for every composition in fact) is that your drawing should have a dominant part. *Avoid* having *several* "important" parts, all about the same size. In any decorative composition where all of the motives are of the same size there is no interest in any of them. In an Italian building, it is

Fig. 26. Villa dei Collazzi, South Side.

the big blank wall which sets off the few spots of interest. (Fig. 26). If you *cover* a wall with the most interesting ornament it is no longer interesting (Fig. 27). In this example compare the façade of the villa, with its all-over ornament, with the garden wall in the foreground with its plain surface and spots.

One feature must be made the prominent part of the composition—the key to the whole thing. This one feature (in a plan problem) is not necessarily the building. It may be a "white", a garden, for instance, or a "Public Square" (as in the Grand Prix design of Jausseley, Fig. 129, in my article in PENCIL POINTS for February 1922), and yet be the center key of the composition. This example is a "Warren Prize" drawing: in this competition documents and criticisms may be used, and we shall have something further to say of it later on. This is, however, a good example of a well presented sketch problem. In other cases a building is in the center, and if it is a large building, some portion of it is chosen and featured, as the "focus" of the composition, as in Figure 28.

If the program requires several buildings, it will be necessary to compose "entourage" around them. In an esquisse-esquisse this should not be done in a separate operation—it should all be done at the same time, for both it and the buildings are parts of what *is a single decorative composition* as well as a plan problem. You compose with the open spaces just as much as with the buildings.

In some problems the site is so cramped that the building required just fits it, as in Figs. 24 and 25. In others the site is more ample, as in Figure 29. In such cases it is well to start the big scheme in composition by laying out the two big axes, at right angles to each other, and arrange the buildings on or about them afterward—working first the roads, the circulations, the gardens, etc.

This is not unreasonable. If you have a large group of buildings, the buildings are not important in themselves, so far as the composition is concerned: it is the grouping which makes the composition—the planning of the open spaces, not the buildings. So, in large composition, do not start by taking the requirements and working up each building—you will find it more satisfactory to design the courtyard, or the plaza, and place the buildings around it, especially for the esquisse-esquisse.

There are problems where the site given has special topographical conditions—sloping ground, or ground open toward a sea. Here again it is much more important to compose with the open spaces than with the buildings. Work it all at the same time.

If the program calls for one building and this building, from the requirements given, about fills the size of paper or card allowed, the design of the entourage is not important. For this reason it is well, after reading the program, if it calls for a single building, and says the lot is, say, 300 by 400 feet, and at such and such a scale, to find out how much of the paper is occupied by this building, and you see right away how much is left for a plaza in front, etc. If there is plenty of room, study its composition with that inside the lot; if there is little do not spend much time on it, for a few lines will be all that is necessary; then think of the building only. The elevation and section do not take much room or require much time.

In making the final drawing do not be afraid of putting in too many lines—some of them can easily be lost in the rendering, if that should be desirable; while too few lines always give a plan an empty look. As an interesting example of the technique of presentation we show Fig. 30, a problem entered in the Labarre competition at the Ecole des Beaux Arts by D. M. Kirkpatrick (Paris Prize 1912) and a detail portion of it at larger scale, Fig. 31.

DRAWING IN PENCIL

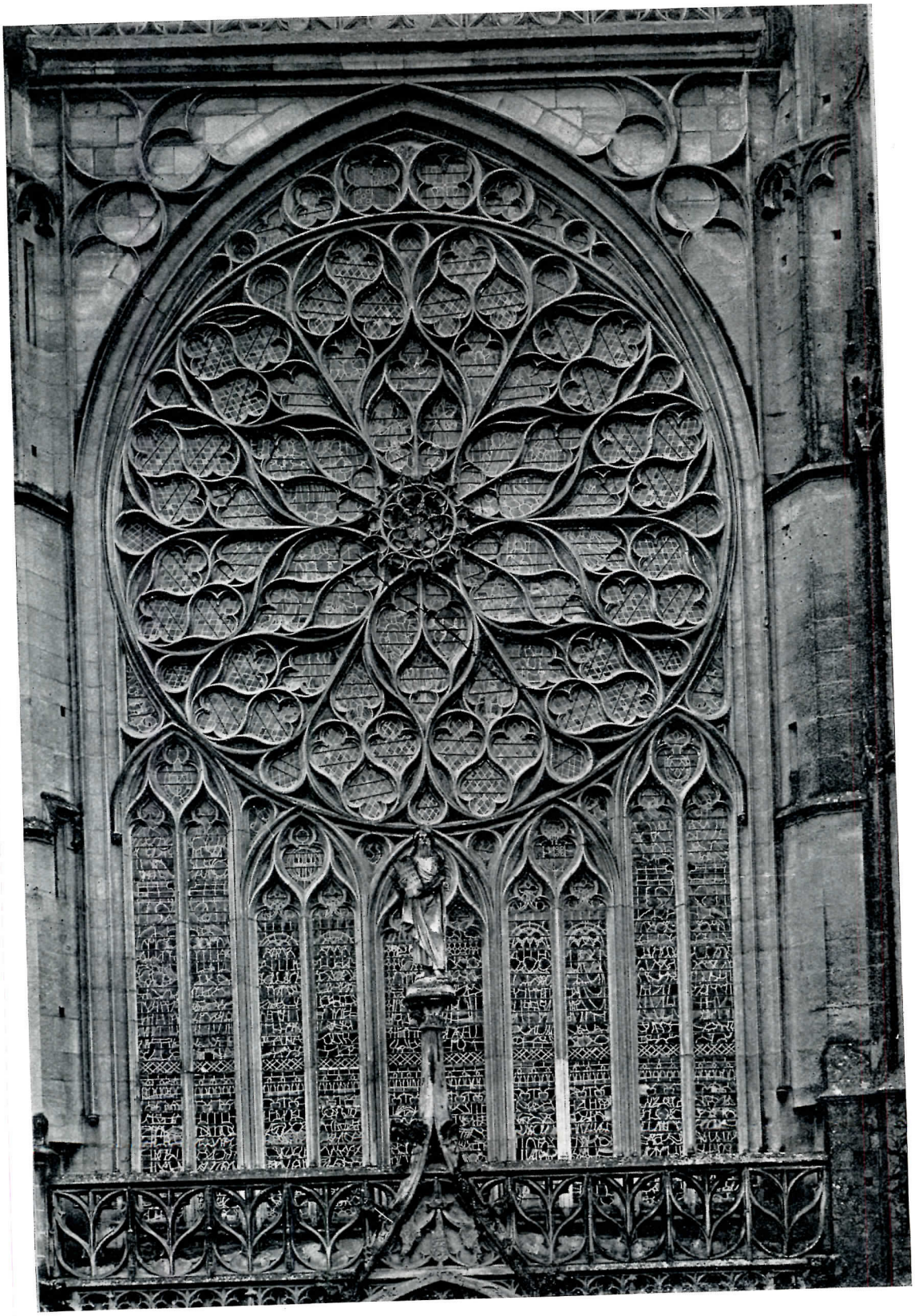
(*Continued from Page* 30)

I have been asked about my technical habits in drawing—among other things, about the number and grade of pencils I use. I generally content myself with two while at work outdoors, an F and a B, though I find it necessary to vary these on account of temperature, humidity, and dust. The difference between working on humid paper in shadow and on dusty paper with the hot sun beating on it is surprising. I find it a good thing, therefore, to carry quite a number of grades with me, and I generally include a rather hard pencil, H or 2H, for extremely delicate effects in the distance and clouds.

Different grades of pencil may be used to make very varied surface or texture effects on the paper. A foreground carried out in big strokes of a soft pencil will easily take its place in front of a background of precise strokes made with a hard pencil. Texture effects may be combined, as well; for example, a patch of smooth, dark tone made by pressing on an F very hard may be relieved and livened by free strokes with a 2B or 3B pencil. Again, a passage freely drawn with a B or HB may be lowered in value by a smooth, transparent overlay carried out with an H pencil. Very often work of this latter kind can be done much better at home than outdoors. I quite ordinarily rework my drawings a little. It is a thing to be done with caution. Some artists use their outdoor work merely as data, doing the final drawing entirely in the studio, but a great many men are unable to do effective work in this way.

I have for a long time drawn "tracing size," that is, making my picture the size of the visual image at my paper's distance. I am convinced that this manner of drawing makes it easier to get the positions, measures, and shapes correctly. Less preoccupied with making the work merely correct, one's attention is freer to consider stylish execution. Important, too, is the fact that the number of construction lines may be reduced, and the work thus kept cleaner than it is possible where the hand is rubbing back and forth over such lines. In delicate

(*Continued on Page* 57)



ROSE WINDOW, SOUTH TRANSEPT, CATHEDRAL OF SENS.
FROM "SELECTED MONUMENTS OF FRENCH GOTHIC ARCHITECTURE"

The charming rose window of the south transept of the Cathedral of Sens is well shown in the photographic view reproduced on the other side of this sheet from the archives of the French Commission of Historic Monuments.

REIMS CATHEDRAL

FROM "SELECTED MONUMENTS OF FRENCH GOTHIC ARCHITECTURE"

The interior view reproduced on the other side of this sheet conveys much of the nobility of beautiful Reims Cathedral. This view, like the one reproduced on Plate V of this issue, is from the archives of the Commission of Historic Monuments.

PENCIL SKETCH, BY C. D. MAGINNIS. VIEW FROM THE STEPS OF DELLA SALUTE, VENICE

One of the many delightful pencil sketches made by C. D. Maginnis, of the firm of Maginnis & Walsh, architects, Boston, is shown on the other side of this sheet. Pencil drawings by Mr. Maginnis always have a special charm due to the simplicity and sensitiveness that marks them and this journal has fortunately been able to reproduce a number of these sketches through the courtesy of Mr. Maginnis.

PENCIL SKETCH, BY PAUL GMELIN, THE CATHEDRAL, GRANADA

An unusually interesting pencil drawing is the study of the Cathedral at Granada by Mr. Gmelin which is reproduced on the other side of this sheet. It presents a very effective and useful method of recording both the spirit and the architectural features of a building.

THE TECHNIQUE OF RENDERING, PART V.

BY FRANCIS S. SWALES

In the serial article of which this is the fifth installment Mr. Swales explains practical methods of rendering. These methods, though based on what may be regarded as standard practice include variants that have been found effective in actual work. In preparing this article Mr. Swales has drawn freely upon the fund of experience he has gained in his architectural work.—ED.

IN AN earlier part of this article it was stated that a good rendering implied a good drawing; but it might have been stated that a good drawing in the sense of a well-studied, finished diagram is a good rendering, but lacking the third dimension. Upon line-technique depends the effect of the scale of the design perhaps more than upon anything else. Human figures, trees, balustrades, steps, stone jointing, etc., all help in conveying the intended sense of scale conceived by the designer, but without much of such assistance scale—which is half the battle in all designing—can be well or deceptively conveyed by the use of the right or wrong weight and quality of line. One does not have to use a scale in order to know the sizes of the parts of the design with relation to average human stature in such drawings as Figures 30 and 32 (December PENCIL POINTS) even though there is no human figure on the drawing. The scale of the stone work alone is sufficient to enable one to estimate approximately the size of the whole, and of any part of the building.

The work of that great organization of architects known as McKim, Mead and White never fails in the essential quality of good scale, nor their presentation studies to convey it clearly. The design for the McKinley Birthplace Memorial is shown by a drawing of a fine line technique (Figures 34 and 35) which contributes to the general excellence of the design and its presentation. It is very carefully and firmly drawn, even the entases of the columns being shown.

Two shades of ink are used, one much diluted, the other nearly full black, and the lines are varied in width as needed to define the relative importance of the parts of the design. A strong black outline separates the building from the background. The principal vertical breaks, outlines of capitals, and the right side of the columns in the peristyle are also shown by full black (or nearly so) but finer, lines. A half strength black line is used to outline the engaged columns and the lower shadow-casting line of the entablature. The wash rendering is very simple, but sufficient. The conventions of representing the statue and distant wall, seen through the peristyle are managed without difficulty, though unusually light in value for the amount of aerial perspective to be expected in the distance to them from the peristyle as indicated on the plan (Figure 36). The background is put in with an air-brush, and a slight amount of fine stippling, or "speckling," with an atomizer, appears at either side of the building. The mere suggestion of trees is made with a brush. A few tiny points in the flowers in the vases, and the tree at the right, also a fine line along the top of the hedge have been touched in with Chinese white. The general effectiveness of the presentation is enhanced by the treatment of the foreground, the sidewalk and roadway being indicated by a couple of horizontal lines and a wash of "dirty-water," and a flat band of darker shade placed between the roadway and the wide title band at the bottom. The free-hand drawing of the lettering of the title adds a pleasing touch to the general attractiveness of this drawing. The same characteristics and conventions of drawing are used in the plan as in the elevation though drawn by a different draftsman, and both drawings are excellent models of presentation for competition or record drawings —clear, correct and informative.

It was intended here to use Mr. Goodhue's detail of the Nebraska Capitol Competition design to illustrate other points of technique in relation to scale; but instead of the drawing requested Mr. Goodhue sent photographs of other drawings which were not familiar to the writer, one of which (Figure 37) illustrates some of the things, particularly relating to scale, which the study of technique tends to avoid. For example the foreground walks are in a much smaller scale than the monument—and in the photograph from which our illustration is reproduced, they fail to take their place as a base to the structure and appear rather like a fence, over which one seems to see tree-tops and the upper part of a church-tower-like structure. We do not realize immediately the big scale of the monument. The stone-work in the foreground, or retaining walls, seems so small in scale as to suggest terra-cotta blocks, for the impression, given by the comparatively coarse line-work of the stone-jointing in the tower and the sizes of the stones, is that of a drawing at the scale of one-eighth of an inch to the foot, while the actual scale is one-sixteenth of an inch. One has to measure the parts in order to determine their sizes; because, immediately one attempts to compare the figures on the foreground steps with the various scales of sculpture one realizes that no consistent relation exists between them. The human figures measure from four to five feet in height, but until that is discovered it is not clear whether the opening at the base, which is 3 feet by 5 feet, is intended as a doorway, or not. The strange exaggeration of scale is apparently partly a matter of technique. The stones in the retaining walls are not so small as they seem by comparison with those in the tower; nor are the stones at the base of the tower as huge as they seem to be

(*Continued on Page* 57)

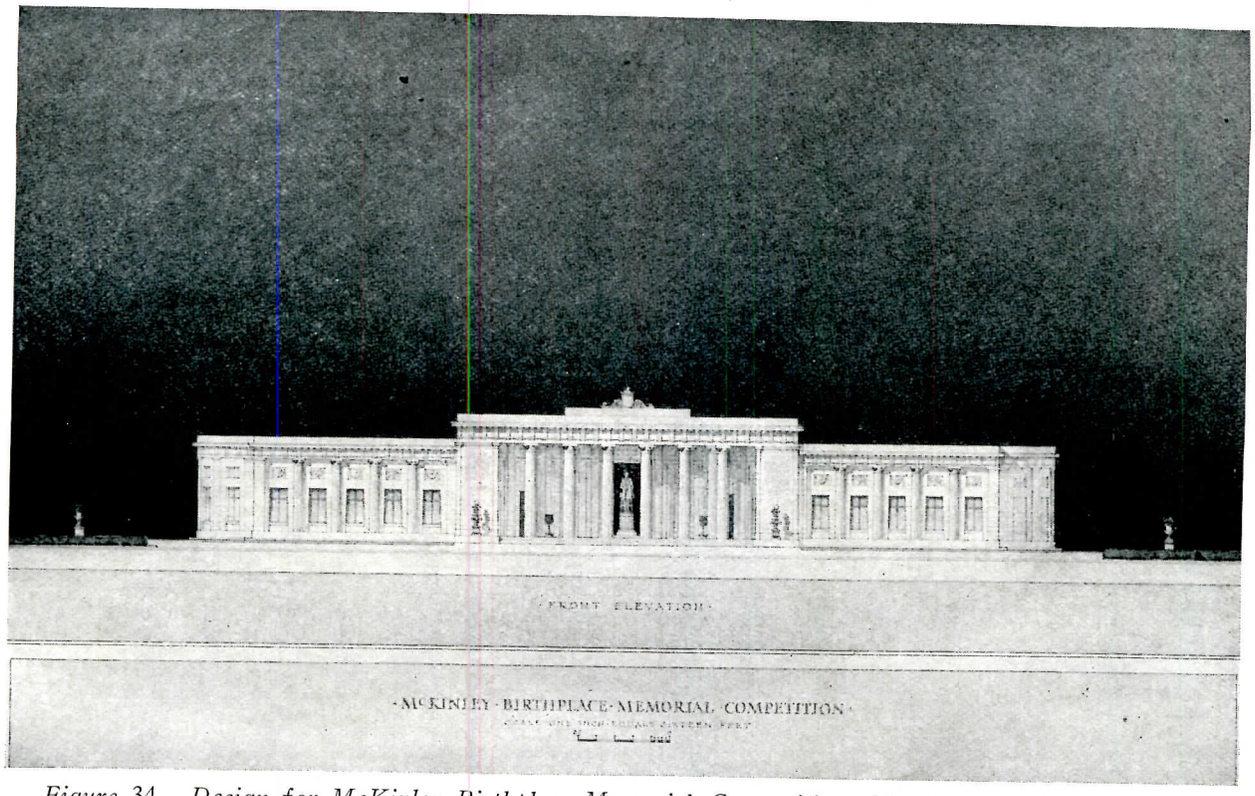


Figure 34. Design for McKinley Birthplace Memorial Competition, McKim, Mead and White, Architects. Drawn and Rendered by Gerald Holmes.

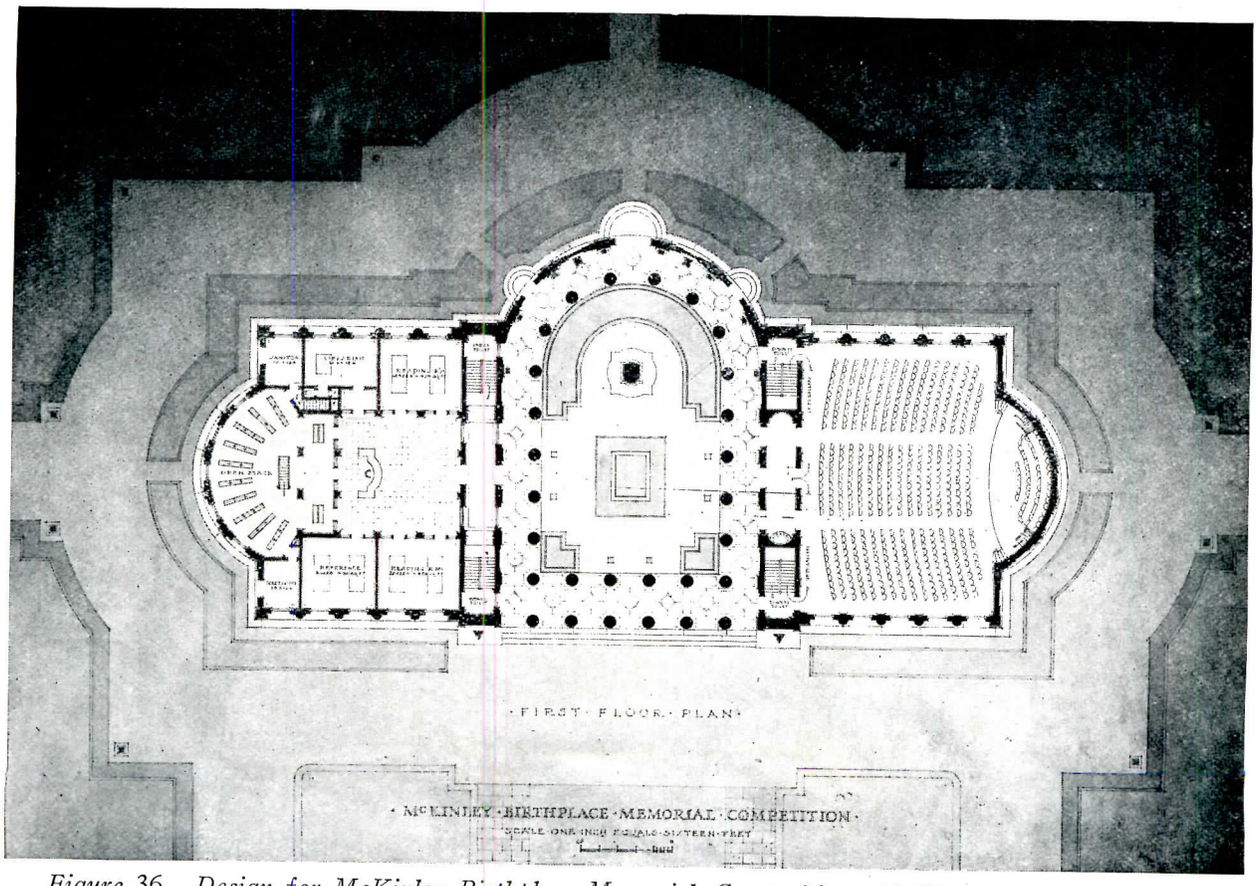


Figure 36. Design for McKinley Birthplace Memorial Competition, McKim, Mead and White, Architects. Drawn and Rendered by John Thompson.

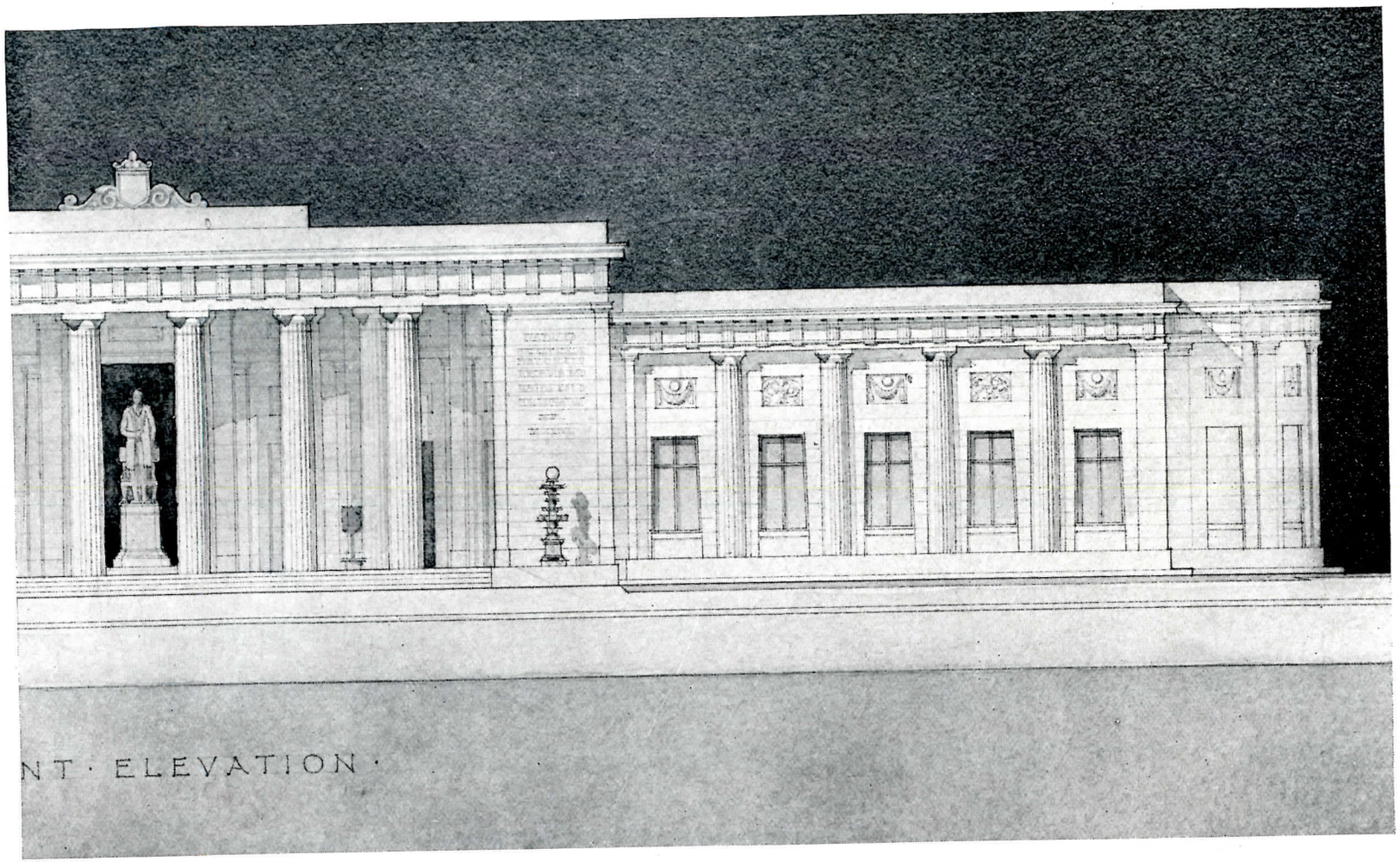


Figure 35. *Design for McKinley Birthplace Memorial Competition, McKim, Mead and White, Architects. Detail of the drawing shown in Figure* 34, *at the actual size of the original drawing. Scale* $\frac{1}{16}$ *in.*=1 *foot. Drawn and Rendered by Gerald Holmes.*

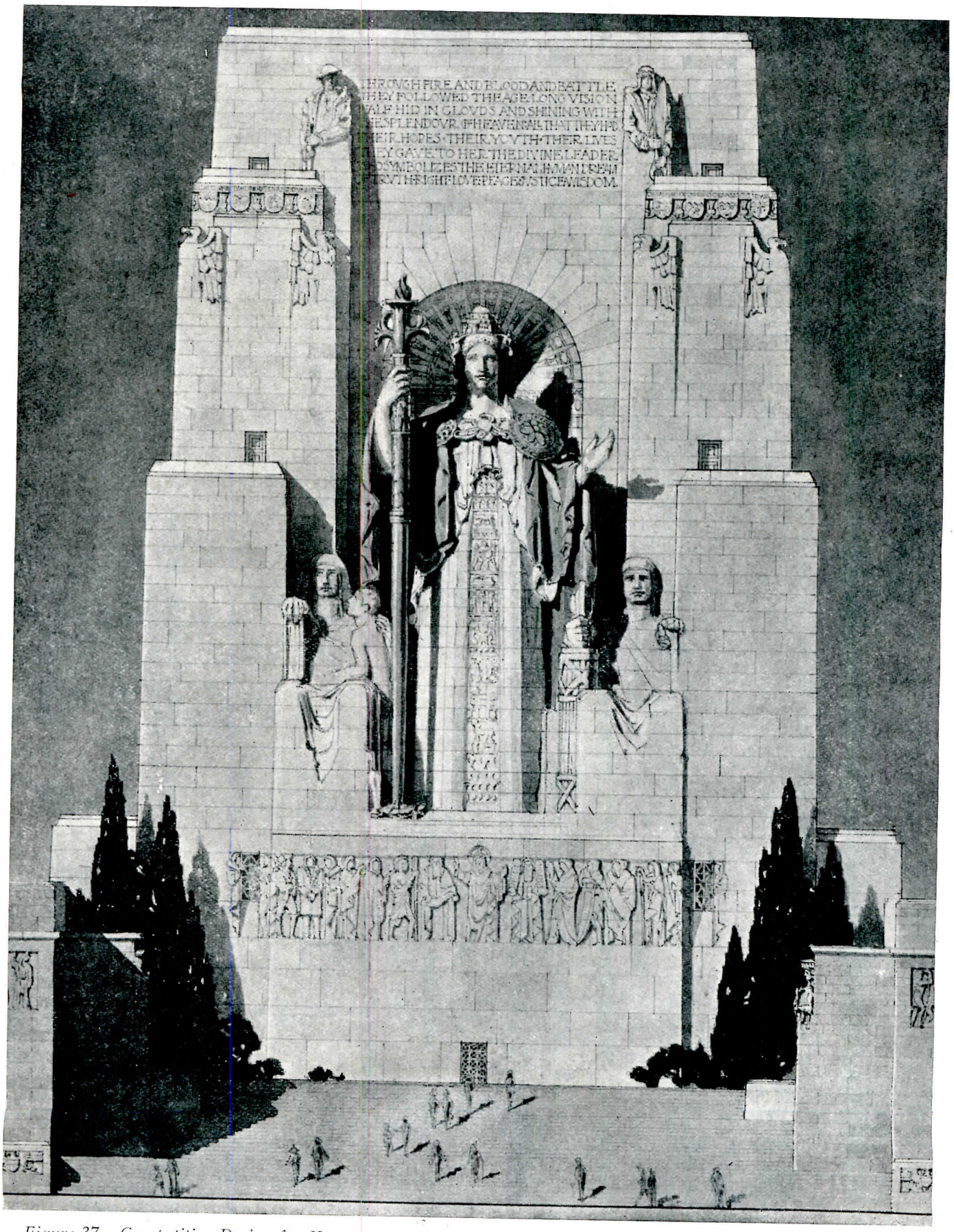


Figure 37. Competitive Design for Kansas City Memorial, Bertram G. Goodhue, Architect. This is a detail of drawing shown in Figure 38, reproduced at the actual size of the original drawing. Scale $\frac{1}{16}$ in.=1 foot.

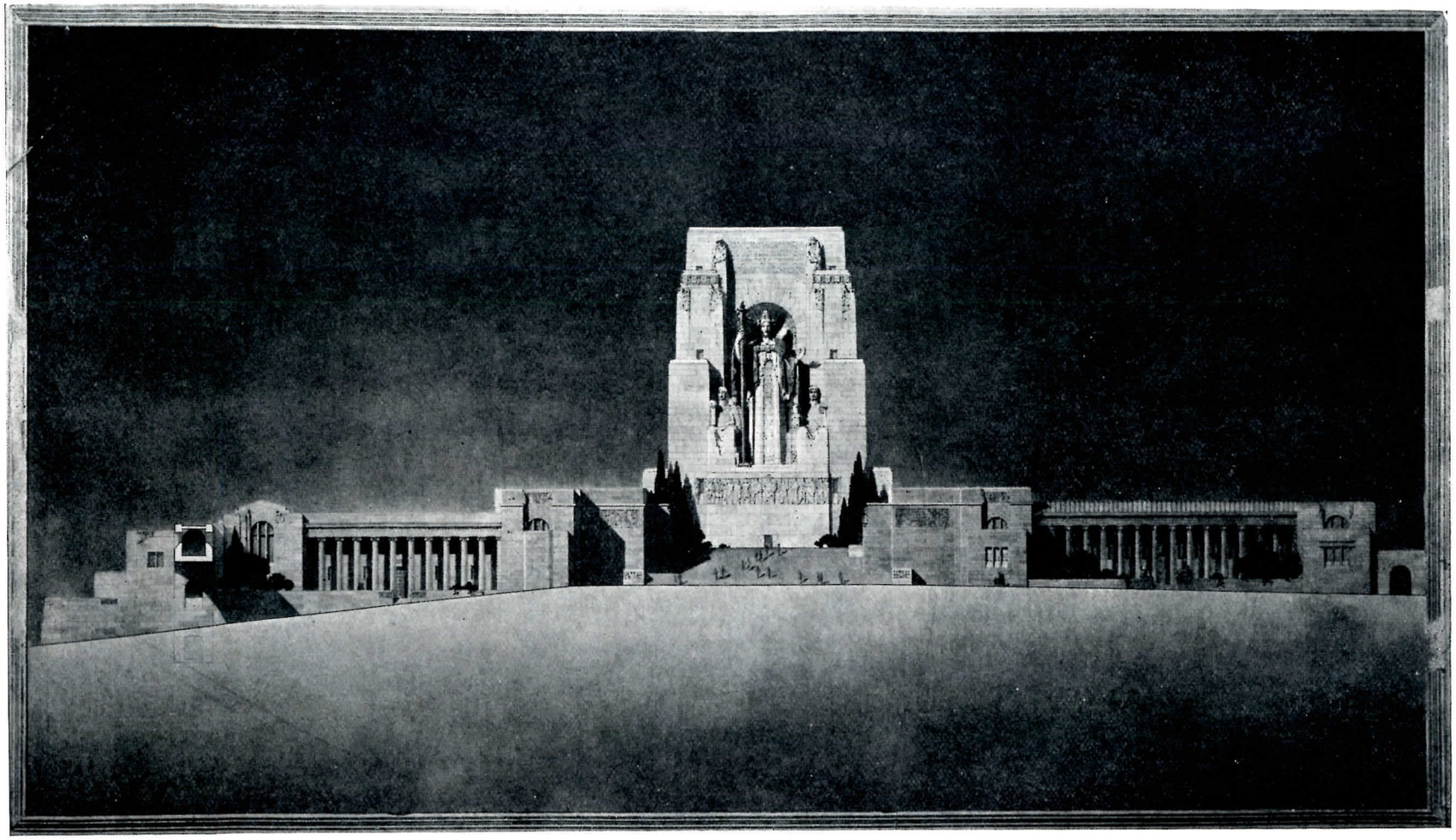


Figure 38. Main Elevation, Competitive Design for Kansas City Memorial, Bertram G. Goodhue, Architect.

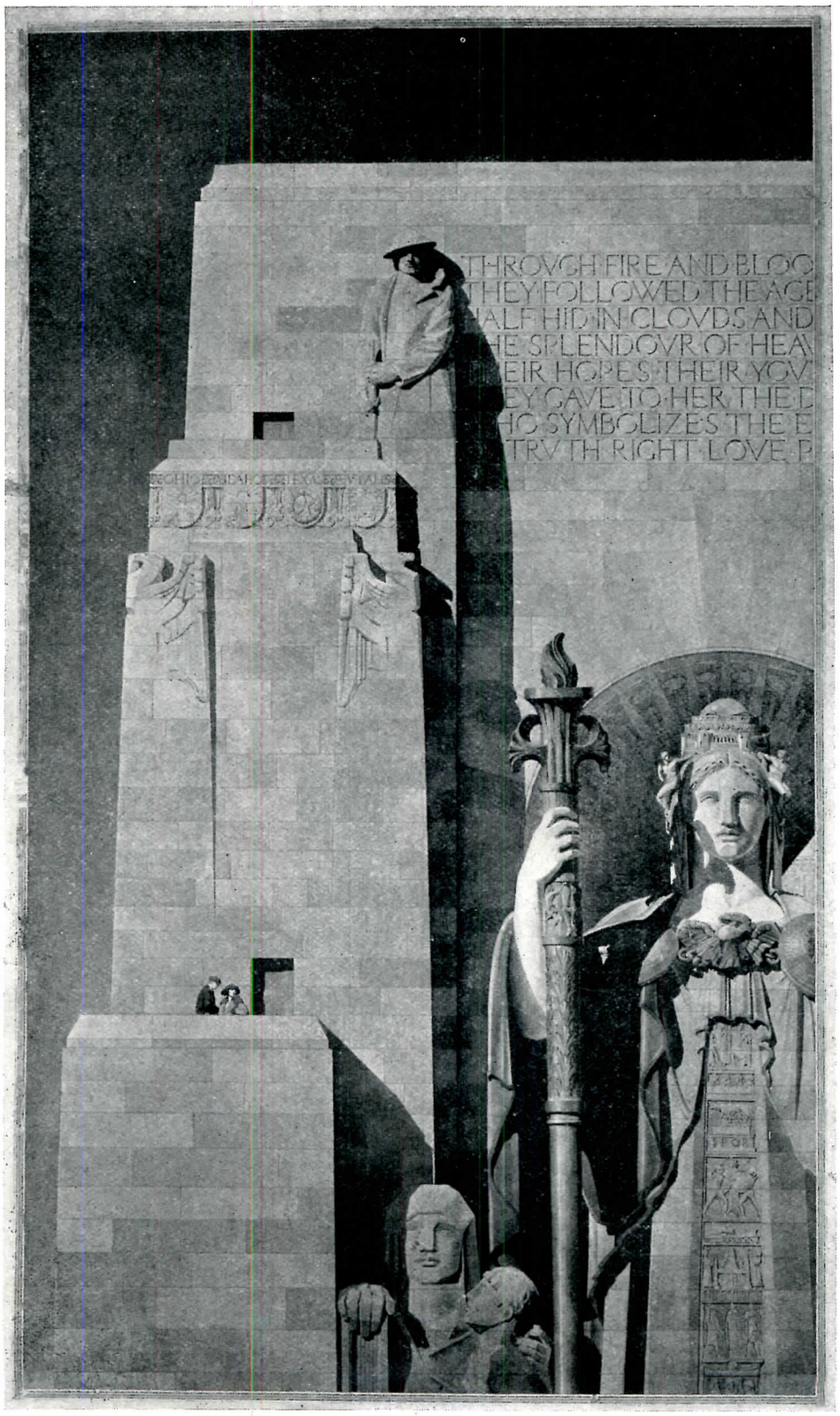


Figure 39. Detail of Competitive Design for Kansas City Memorial, Bertram G. Goodhue, Architect.

ESSENTIALS OF LIFE DRAWING

BY FRANK VINCENT DU MOND

This is the first installment of an article in which Frank Vincent Du Mond, the well-known painter and mural painter and instructor at the Art Students League, New York, discusses matters of vital interest to all students of life drawing. Mr. Du Mond does not attempt in the course of an article to teach life drawing; that must be done by the student's own instructor in class. Mr. Du Mond's article conveys a strong message and stimulates thought.—Ed.

LIFE drawing is exactly what its name implies, the drawing of life. It is not "drawing from life." It is not, in the broadest sense, merely drawing from the human figure. One may make a life drawing of a tree. The point I wish to make clear at the outset is that in life drawing the prime essential is to draw the life of the subject, the character, personality, action. There is nothing more lifeless than the type of so-called life drawing too generally accepted in art schools. I had thought to present here reproductions of a few of these school drawings, for the making of which the students had received commendation from the authorities of the art school and, in some cases, prizes. But I decided to spare the reader and to forbear defacing the pages of this magazine. Such drawings as I should have been compelled to use to illustrate my point are ugly and repellant to everyone who is not blinded by what I call the art-student preoccupation with the minuitae of drawing from the model.

Pencil Study by J. F. Millet

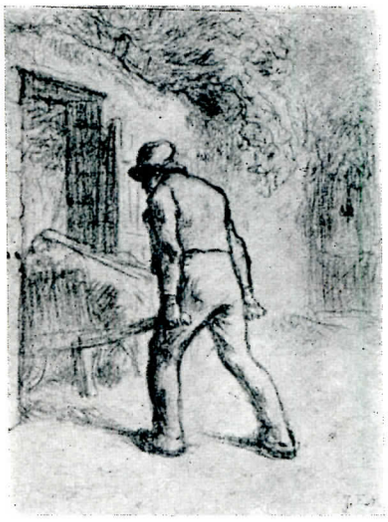
Instead of placing the model in a lifeless and meaningless art school pose it is important to have the model *doing something*. Give him a base ball bat and let him imagine himself striking a pitched ball. Give him a rapier and tell him to thrust. Put two sticks into his hands and tell him that they are the handles of a wheelbarrow he is to push. If a man wants to knock down an apple that hangs so high on a tree that is beyond his reach he is likely to find a pole to knock that apple down with. Just as soon as he takes the pole into his hands and reaches for the apple, his whole person is co-ordinated for the accomplishment of his purpose and the pole becomes, in a peculiar sense, a part of himself for his thought includes it as an extension of himself for this special purpose. A model instructed to knock down an imaginary apple is a much better subject to draw than the same model standing in a prescribed art school attitude of which he does not know the meaning, for the good reason that it probably has none.

If I instruct the model in the presence of the class to knock down an imaginary apple, let us say, and talk to the class about what the model is to do, I am centering their attention as well as that of the model on the action described, I am binding them all together with a unity of interest. Understanding the model's purpose and entering into his thought, they will be in a condition of mind favorable to the expressive representation of the figure in this action.

Now, I do not wish to be understood as advocating the drawing of figures in more or less violent action only. Everyone is doing something all the time as long as he lives,; he is doing something when he is sleeping. Though a sleeping person or a person resting is very quiet he is breathing and moving slightly; there is life and a certain degree of action. The lines of a figure in violent action are, in general, angular; there is something of the character of the conventional representation of a lightning stroke, while the lines of a person resting are, in general, smooth curves, flowing gently into one another. Between these extremes lie innumerable degrees of action that have their correspondingly various expressions in line. The point I wish to bring out is that one should perceive and draw *life* whether the subject be in violent action or quiescent.

Among the best examples I know of the drawing of action are the sketches of J. F. Millet made as studies for his paintings. They show a remarkable insight into the psychology of the subject in every instance and a remarkable ability to express, by means of the pencil, that which he perceived. A number of these studies are reproduced at small size in connection with this article. Though they are not life drawings in the generally accepted sense, they reveal clearly J. F. Millet's mastery of the art of drawing figures.

Note the swing of the arm of the sower, the stride, the whole motion of the figure. Note also how the man pushing the wheelbarrow is throwing his weight forward against the load and how his arms hang straight and taut as the means by which a portion of the weight of the load is suspended from his shoulders. In the sketch of the man, woman and child, note the expressiveness of the gesture of the man, the brooding care expressed in the lines of the woman's figure, and the animation and joy in that of the child. In the group of which the centre of interest is a hog, note how the animal is throwing his weight on the ground to make himself as nearly immovable as may be, while the men have their feet



Pencil Studies by J. F. Millet.

firmly planted and their weight thrown in the opposite direction. Of this matter of a foot-hold I wish to say more later. Foot-hold is the key to all movement on the part of animals, including man. It deserves special attention on the part of the artist and student. In the study of a woman pouring milk into a jar we have an example of relatively quiet action and we find that the artist has perceived her mental concentration on the task and expressed it. I wish to say in passing that J. F. Millet used a model only for checking up such studies after he had drawn his first conception.

Still less active is the figure shown in the drawing of the late Kenyon Cox, reproduced herewith. Though sitting quietly, this figure is evidently alive and interested in some object upon which the eyes are fixed. It is an excellent illustration of what I said a moment ago about curves that flow gracefully one into another in a figure that is not in violent action. This drawing also shows certain decorative qualities due to the fact that it was made as a study for a mural painting. Of that, more later. Mr. Cox's study for the drapery of this figure is shown here to make evident the fact that the character and the action of the figure find expression in the lines of its drapery or clothing.

I have dwelt at some length upon the importance of sensing the *life* of the subject because I regard it as the prime essential in life drawing and the thing that is most important for the student to grasp. There is too much *negative* study, too much effort to *avoid* mistakes and too little of the *positive* about the way most students approach the subject of life drawing. They spend years learning what *not* to do, instead of developing *insight*.

It is not the fault of the student, but of the

standards of judgment adhered to for many years, which give honors too often to the careful, plodding but unseeing person who copies the model with meticulous care. A mastery of technique is essential to the finished artist, proportion, anatomy, and all the rest of it are necessary, but only to reinforce and make facile and effective his expression of what his *insight* reveals.

In this connection it is interesting to read the passage from Ralph Waldo Emerson's "The Conduct of Life" which is quoted below from his discussion of the subject of "Behavior":

"The soul which animates Nature is not less significantly published in the figure, movement and gesture of animated bodies, than in the last vehicle of articulate speech. This silent and subtile language is Manners; not *what* but *how*. Life expresses. A statue has no tongue, and needs none. Good tableaux do not need declamation. Nature tells every secret once. Yes, but in man she tells it all the time, by form, attitude, gesture, mien, face, and parts of the face, and by the whole action of the machine. The visible carriage or action of the individual, as resulting from his organization and his will combined, we call manners. What are they but thought entering the hands and feet, controlling the movements of the body, the speech and behavior?"

(To Be Continued)

ARCHITECTURAL EDUCATION

AN IMPORTANT work about which most students and many members of the architectural profession know too little is being carried on by the Association of Collegiate Schools of Architecture composed of representatives of the architectural faculties of seventeen schools of architecture including most of the great universities and technical schools that have departments of architecture.

Among the subjects of moment relating to architectural education to which the Association is giving thoughtful study is the question of the five year course in architecture as the accepted standard in stead of the four year course now found in most schools of architecture. The preponderance of opinion, as shown by answers to questionnaire sent out to those schools which, in the opinion of the Committee and to its best knowledge, did not offer as yet a course exceeding four years of study, was in favor of a five year course. Thirty-two schools expressed their opinion, only three not replying. This revealed the fact that besides the four schools which were already known to offer a course of at least five years' duration, five more were to be added as having definitely adopted it.

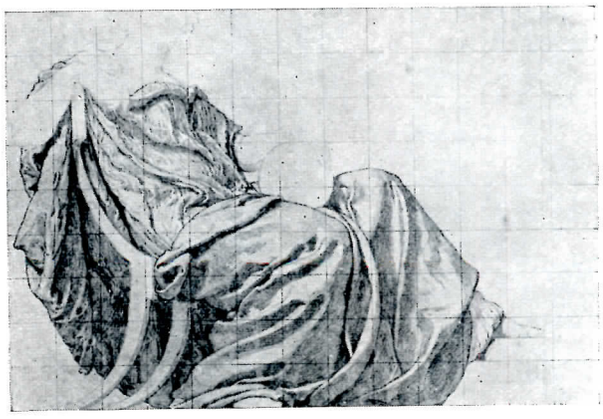
To the question "Are you satisfied with the four year course as generally established in all the schools?" twenty-five, or the almost unanimity of answers received were negative.

To the question "Do you favor a five year course?" twenty schools unreservedly approved it and only three schools took a definite stand against it.

In short, it would seem from the results of this inquiry that the principle of the five year course, and in certain instances, of even a longer period, has been widely indorsed by schools of architecture and that it is only a question of time before it will be established, and almost without exception, throughout the country. Most schools have felt the need and a few have taken the lead.

Another question which is being studied by the Association is, "Should the schools in older centres of population be post-graduate schools for the graduates of those schools located in isolated sections or newer centres of the country?"

THE Boston Architectural Club has published a remarkable book covering the Tudor Period of English Domestic Architecture, with Measured Drawings and Details, copies on sale at Five Dollars ($5.00) per copy net f. o. b. BOSTON. Orders should be sent in at once as the edition is selling out rapidly. Checks should be made payable to Fred. V. Little, Executive Secretary, No. 16 Somerset St., Boston, Mass.



Pencil Studies of Figure and of Drapery by Kenyon Cox.

PENCIL POINTS

Published Monthly by

THE PENCIL POINTS PRESS, Inc.
Publication Office—Stamford, Conn.

Editorial and Advertising Offices — 19 East 24th Street, New York

RALPH REINHOLD, President F. W. ROBINSON, Treasurer
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Subscription rates per annum, payable in advance; to The United States of America and Possessions, Argentina, Bolivia, Brazil, Columbia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Honduras (Republic), Mexico, Nicaragua, Panama, Paraguay, Peru, El Salvador, Spain and Colonies (Balearic Islands, Canary Islands and Spanish possessions on the north coast of Africa), and Uruguay, $2.00. Single copies, 25 cents. Canadian Subscription, $2.50. Foreign countries not mentioned above but in the Postal Union, $3.00. Payment for foreign subscription should be made by International Money Order or American Express Money Order drawn in terms of United States Funds.

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COMPETITIONS FOR PRIZES OF ROME ANNOUNCED

THE American Academy in Rome has announced its annual competitions for its Fellowships in architecture, sculpture, painting, musical composition, and classical studies. The stipend of each Fellowship in the fine arts is $1,000 a year for three years. In classical studies there is a Fellowship for one year with stipend of $1,000, and a Fellowship paying $1,000 a year for two years. All Fellows have opportunity for travel, and Fellows in musical composition, from whom an extra amount of travel is required in visiting the leading musical centers in Europe during six months of each year, receive an additional allowance not to exceed $1,000 a year for traveling expenses. In the case of all Fellowships residence and studio (or study) are provided free of charge at the Academy.

The awards of the Fellowships will be made after competitions, which in the case of the fine arts are open to unmarried men who are citizens of the United States; in classical studies, to unmarried citizens, men or women. Particular attention is called to the fact that in painting and sculpture there will be no formal competition involving the execution of work on prescribed subjects, as formerly, but these Fellowships will be awarded by direct selection after a thorough investigation of the artistic ability and personal qualifications of the candidates. Applicants are accordingly requested to submit examples of their work and such other evidence as may assist the jury in making the selections.

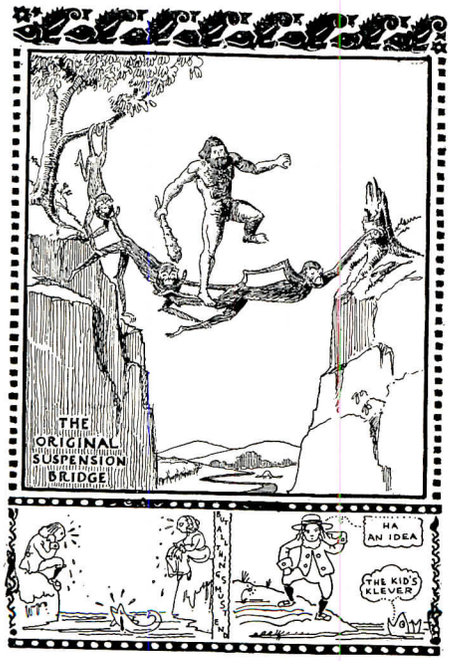
Entries will be received until March first. Circular of information and application blank may be obtained from Roscoe Guernsey, Executive Secretary, American Academy in Rome, 101 Park Avenue, New York City.

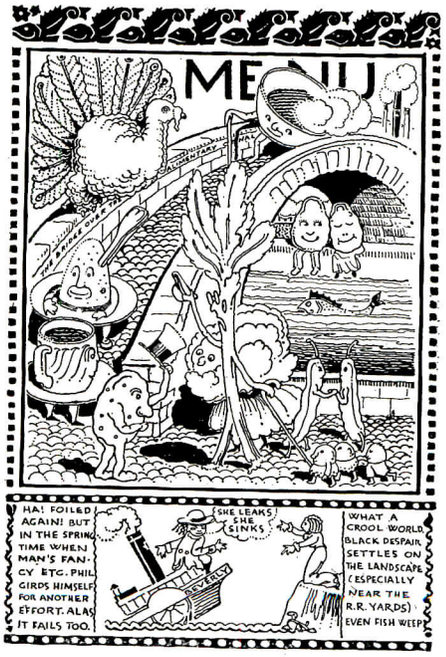
PITTSBURGH ARCHITECTURAL CLUB

THE Pittsburgh Architectural Club is now preparing for its 14th annual exhibition to be held in the Galleries of the Carnegie Institute, Pittsburgh, from February 6th to February 22nd inclusive. The General Exhibition Committee is comprised of the following: Oliver J. Robling, Chairman, Kenneth R. Crumpton, R. Alex. Willson, Leo. A. McMullen, W. B. Chalfant, William H. Harrold, E. H. Steffler. Committee on Hanging is comprised of the following: Douglas D. Ellington, Chairman, Edward B. Lee, Howard K. Jones, Thomas Pringle, Stanley L. Roush, Ernest W. Boyer, Henry Hunt.

The Club is again publishing their monthly mouthpiece, the "Charrette"—Mr. Thomas Pringle taking over the editorship for the ensuing year.

The next regular monthly meeting will be called to order in the Chamber of Commerce Building, the evening of the 24th inst.





Designs for Pages of Second Annual Staff Dinner of the Delaware River Bridge Commission. The Design at the left is by Roy Larson and the one at the right is by John F. Harbeson.

GERALD K. GEERLINGS

GERALD K. GEERLINGS, winner of the Henry Gillette Woodman Prize for 1923 was born in Milwaukee, Wis., studying there under professors of the Chicago Art Institute before the war. During the war he served with the "75" Artillery of the 32nd Division overseas. After the armistice he attended Cambridge University, England, studying principally archaeology, history of the fine arts and English architecture. Upon returning to the United States he completed the work for his bachelor's and master's degrees in architecture at the University of Pennsylvania. During his last one and a half years at the University Mr. Geerlings held an assistantship in architectural design under Prof. Paul P. Cret. For the year 1921-22 he was awarded the "Prix d'Emulation of the Société des Architects Diplomés par le Gouvernement Français." For the past two years Mr. Geerlings has been with York and Sawyer. He plans to sail this coming September.

THE ARCHITECTURAL CLUB OF THE UNIVERSITY OF TORONTO

THE first social event of the season of The Architectural Club of the University of Toronto, Canada, was a dinner for the club members at which Professor E. R. Arthur, the latest addition to the staff in architecture, gave a very interesting talk on student life in England. He outlined some of the architectural work being carried on by the larger universities there, especially by the University of Liverpool, of which he is a graduate. Mr. J. M. Lyall, one of the leading Toronto architects, who has always taken a great deal of interest in our club, discussed the general architectural situation and the outlook for the student, in an authoratative manner. Later, Professor A. W. McConnell, who has recently returned from Europe, spoke on the work of the department and what it aims to accomplish this term. Professor H. H. Madill was not present on this occasion, owing to his recent departure on leave of absence for England, France and Italy. The dinner is but one of several social gatherings that the club has scheduled for the present year.

In the studio the club is showing great enthusiasm, and everything points to a very successful display of work at the annual exhibition held in Hart House each spring.

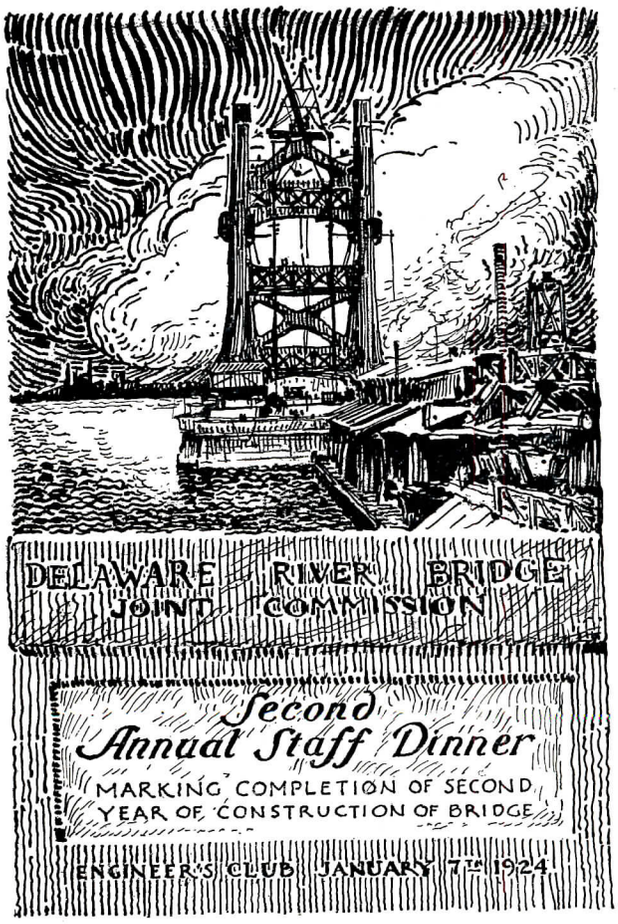
The outdoor sketch classes, inaugurated in the fall term by Professor C. H. C. Wright, and conducted by Professor C. W. Jefferys, have been discontinued, owing to the cold weather, but for many weeks were a feature productive of much pleasure and profit for all who attended. The undoubted value of the experience gained in the water color rendering of natural objects has determined Professor Wright to incorporate these classes in the regular fall programme.

The spring term is being entered by the students with considerable enthusiasm, and the club executives expect to have a very favorable report after the annual exhibition.

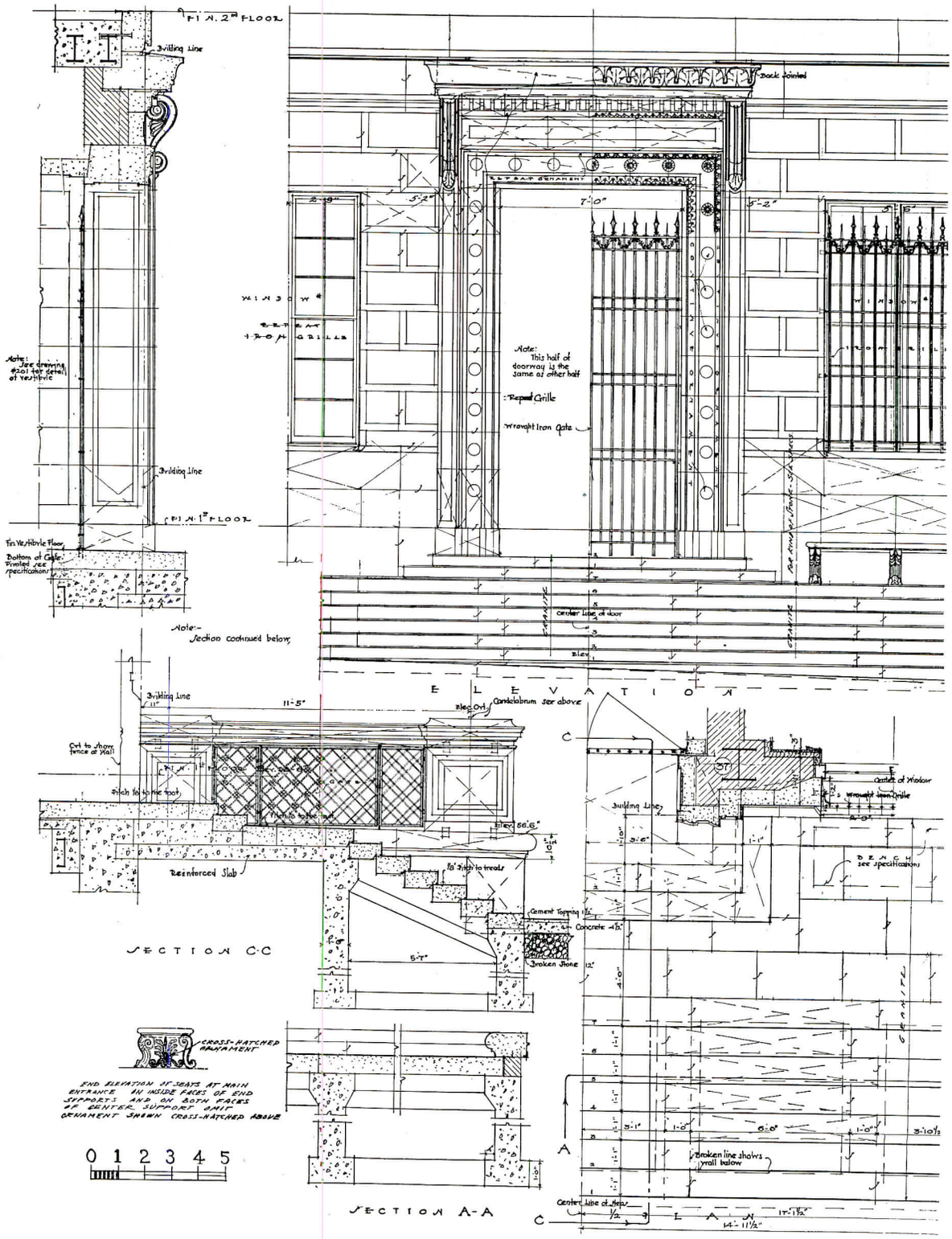
TAU SIGMA DELTA HONORARY FRATERNITY IN ARCHITECTURE AND THE ALLIED ARTS

THE election and acceptance of the new Grand Chapter of Tau Sigma Delta Honorary Fraternity is announced. The election took place in Detroit, Michigan, October 5, 1923, when the National Convention convened. The new officers are Professor George Fraser, Cornell University, Ithica, N. Y., as Grand Master; Professor Wilbur Ronan, Ohio State University, Columbus, Ohio, as Grand Recorder; Mr. John E. Somppi, 608 Temple Building, Detroit, Michigan, as Grand Scribe.

The first meeting of the Grand Chapter will take place the first week in February at Detroit, Michigan. Any information relative to the organization, its administration, or its expansion may be directed to any one of these officers.



Cover Design by Paul Cret for Dinner Program of Delaware River Bridge Commission



Details of Construction—United States Treasury Annex, Washington, D. C.
Cass Gilbert, Architect.

DRAWING IN PENCIL

(*Continued from Page* 36)

work I find it is best to begin in one of the upper corners and work down without construction lines if I can get away with it.

Erasures are almost inevitable, but they should be made and repaired with as much care as possible. It will be found convenient to use two grades—the familiar red and the kneeded rubber. The usefulness of the latter in the drawing where there are delicates nuances to be handled is vrey great, since it will lighten a tone or line without destroying the texture; but it may be abused, and there is a constant temptaion to continue retouching until the drawing is spoiled.

I have often been asked how long I spend over a drawing. I usually put in the best part of two mornings or two afternoons on a seven by nine inch architectural subject, and several hours, first and last, on the retouching. A nine by twelve drawing, the other size I use, takes me about double the time. This is very slow work, but my object has been study, and there is no pleasanter way to spend hours at a stretch studying a venerable building than in making a thoughtful drawing of it.

THE TECHNIQUE OF RENDERING

(*Continued from Page* 45)

when compared at a glance with the foreground figures. An almost invisible joint line, made with a very hard and sharp pencil would have helped the observer to gain some idea of the intended sizes of the stones—which are shown of sizes and proportions unusual in modern work, some of the stones measure 2½′ x 14′, others 5′ x 11′ on the face. The most interesting bit of technique is the head of the large statue and the niche-head behind it, which are beautifully drawn. The best effort to give a sense of the true scale of the design is in the size and indication of the two figures appearing against the attic story. Nothing that I could discover in the photographs of the drawing gives so much as a hint that the principal figure would be sixty-two feet high—which is its actual measurement. Upon seeing the original drawing (Figure 38 for the whole effect) many of the deficiencies of the photographic reproduction became apparent. The drawing is completely inked in with a very fine line of about the same weight throughout and dependence placed on the wash rendering for all effect of modelling and distances. The washes are unusually heavy but handled with great skill. Their density, however, causes the line work in the foreground walls to partially disappear, while on the much lighter walls of the monument they hold their full strength, causing the peculiar illusion mentioned above. Seen in the original, the technical objections are not so very apparent. One would say of the actual drawing that it is not far short of a masterpiece. Of the magnificent detail drawing one may state masterly without reservation. The original of the detail (Figure 39) is nearly six feet high.

PERSONALS

W. Holmes Crosby, Architect, has removed his offices to Room 414 Deach Building, Oil City, Pa.

George Herbert Gray and Clark J. Lawrence have formed a partnership under the name of Gray and Lawrence for the practice of architecture and community planning with offices at 42 Church Street, New Haven, Conn.

Hines & Fisher, Architects, 295 Central Building, Hagerstown, Md., have dissolved partnership and discontinued the practice of architecture.

Ralph E. Griswold will be associated with A. D. Taylor, Landscape Architect, 4614 Prospect Avenue, Cleveland, Ohio.

Morris W. Maloney, Architect, has removed his offices to 23 Pearl Street, Springfield, Mass.

Hoener, Baum and Froese, Architects and Engineers, have removed their offices to Grand Laclede Bldg., St. Louis, Mo.

John Graham, Architect, has removed his offices to 1351-1362 Dexter Horton Building Seattle, Wash.

Delos H. Smith, Architect, has removed his office to 1707 I Street, Washington, D. C.

George Bain Cummings and Fred Leonard Starbuck have formed a partnership under the firm name of Cummings and Starbuck, Architect. The firm will continue the practice of architecture with offices at 520 Security Mutual Buiding, Binghamton, N. Y.

Thomas & Allen, Architects, have removed their offices to The Swope Block, Room 39, Terre Haute, Ind.

W. E. Lescaze has opened a department of decoration in connection with his architectural office, The Lescard Shop, 24 West 8th Street, New York.

Edwin H. Lundie, Architect, has removed his offices to 649 Endicott Building, St. Paul, Minn.

Carl E. Macomber, Architect, has removed his offices to the Board of Commerce Building, Saginaw, Mich.

Clarence E. Wunder, Architect and Engineer, has removed his offices to 1520 Locust Street, Philadelphia, Pa.

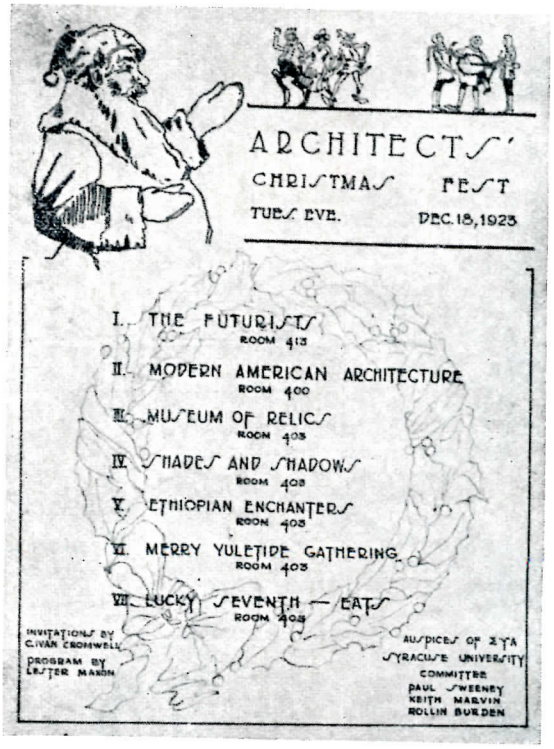
Harley G. Corwin, Architect, has opened offices at 129 West Washington Street, Los Angeles, Cal. The firm of Corwin & Merrill has been dissolved.

Klingensmith, Rice, Wilkens have formed a partnership and removed their offices to 1503 Arcade Building, St. Louis, Mo.

Ellsworth V. Holden, William R. Ferris and Asa B. Cross Barnes have formed a partnership for the practice of architecture under the firm name of Holden, Ferris & Barnes, with offices at 1016 Baltimore Avenue, Kansas City, Mo.

David Podoloff, Architect, has removed his offices to 116 East 57th Street, New York.

Alexander B. Trowbridge, Architectural Adviser, has opened offices in the Bowery Savings Bank, 110 East 42nd Street where his practice will be limited to consultation service.



Design for Announcement of Architects' Christmas Fest, Syracuse University.

FREE EMPLOYMENT SERVICE FOR READERS OF PENCIL POINTS

(*Other Items on Page 76*)

Draftsman for Terra Cotta Plant Wanted: Plant experience desirable but not absolutely necessary. Men with sufficient experience in stone work or with architects may qualify. Continuous employment, with good working conditions at good pay in plant near New York City. Write giving details of experience. Address Terra Cotta, care of Pencil Points.

Architectural Draftsman, junior, attended University in Europe. Six months office experience in this country, desires position. Salary no object. References cheerfully furnished. Leopold Halperin, 110 Avenue C., Brooklyn, N. Y.

Position Wanted: Junior draftsman, good tracer, detailer on small scale, wishes position in architect's office where he can develop. Harry Gillers, 451 Claremont Parkway, Bronx.

Structural Steelwork Draftsman, 5 years' experience, wishes position. John Patrick, care of Paxton, 149 Richards St., Brooklyn, N. Y.

Positions Wanted by two draftsmen with four and eight years' experience on general work. Fred S. Adinolfi, 922 Elsmere Place, Bronx, N. Y. C.

Graduate of U. S. Military Academy desires employment that will require out door work, such as superintendent of construction. Experienced in reinforced concrete work, plans and specifications, F. L. V., care of Pencil Points.

Draftsman Wanted for detailing and billing on high grade veneered doors and trim. Permanent position for right man. Location Southwestern Michigan. C. & P., care of Pencil Points.

General All Around Draftsman, graduate of University of Pennsylvania, desires position. H. A. B., care of Pencil Points.

Architectural Draftsman, Cooper Union and Beaux Arts Institute schooling, three years' experience on small houses, tenements and office buildings, desires position. Address Randolph, care of Pencil Points.

Senior Architectural Draftsman, 14 years experience, having held several responsible positions as chief draftsman, desires position in New York City. Salary $65 per week. Best references. Address Senior, care of Pencil Points.

Young Man would like position in architect's office. Two years' experience. One year at Columbia University and now attending course in architecture. Good at tracing, lettering and modelling. Address Junior, care of Pencil Points.

Position Wanted: Young woman draftsman, Columbia University Extension student with three years' general architectural experience. Capable of producing preliminary sketches, working drawings and details. New York City or vicinity only. IKA, care of Pencil Points.

Young Man seeks position, afternoons preferably, where work will bring him out of doors. C. C., care of Pencil Points.

Architect and Engineer desires connection with small office with view of partnership. Extensive training, experience, thorough on construction, reliable. Age 30 years. Cleveland or vicinity preferred. Box No. 1870, care of Pencil Points.

Wanted: Experienced marble draftsman. Write Candoro Marble Co., Knoxville, Tenn.

Junior Draftsman, 2 years' school experience and 8 months in building. 3963, care of Pencil Points.

Junior Draftsman, two years' experience, two family residences and country homes, some experience in supervision of work on the field, desires position. Joseph A. Igler, 526 East 81st St., New York City.

Junior Draftsman, experienced in interior architectural drawing desires position with New York architect. Experienced in tracing, lettering and rendering. Jeannette Knowles, 39 West 93rd St., New York City, Riverside 7425.

Arthur L. Guptill

ARTHUR L. GUPTILL TO TEACH SKETCHING ON EUROPEAN TOUR

ARTHUR L. GUPTILL, author of "Sketching and Rendering in Pencil" has just completed arrangements which will make it possible for those desiring to sketch under his instruction while taking a sight-seeing tour of Europe next summer to enjoy the double advantage of visiting many of the finest and most interesting examples of architecture and profiting by Mr. Guptill's skill in the teaching of pencil drawing.

The tour will sail from New York and Montreal in June and reach this side on the return trip early in September. The tour will be managed by a well-organized tourist agency, giving those who join the benefit of special facilities for comfort and economy.

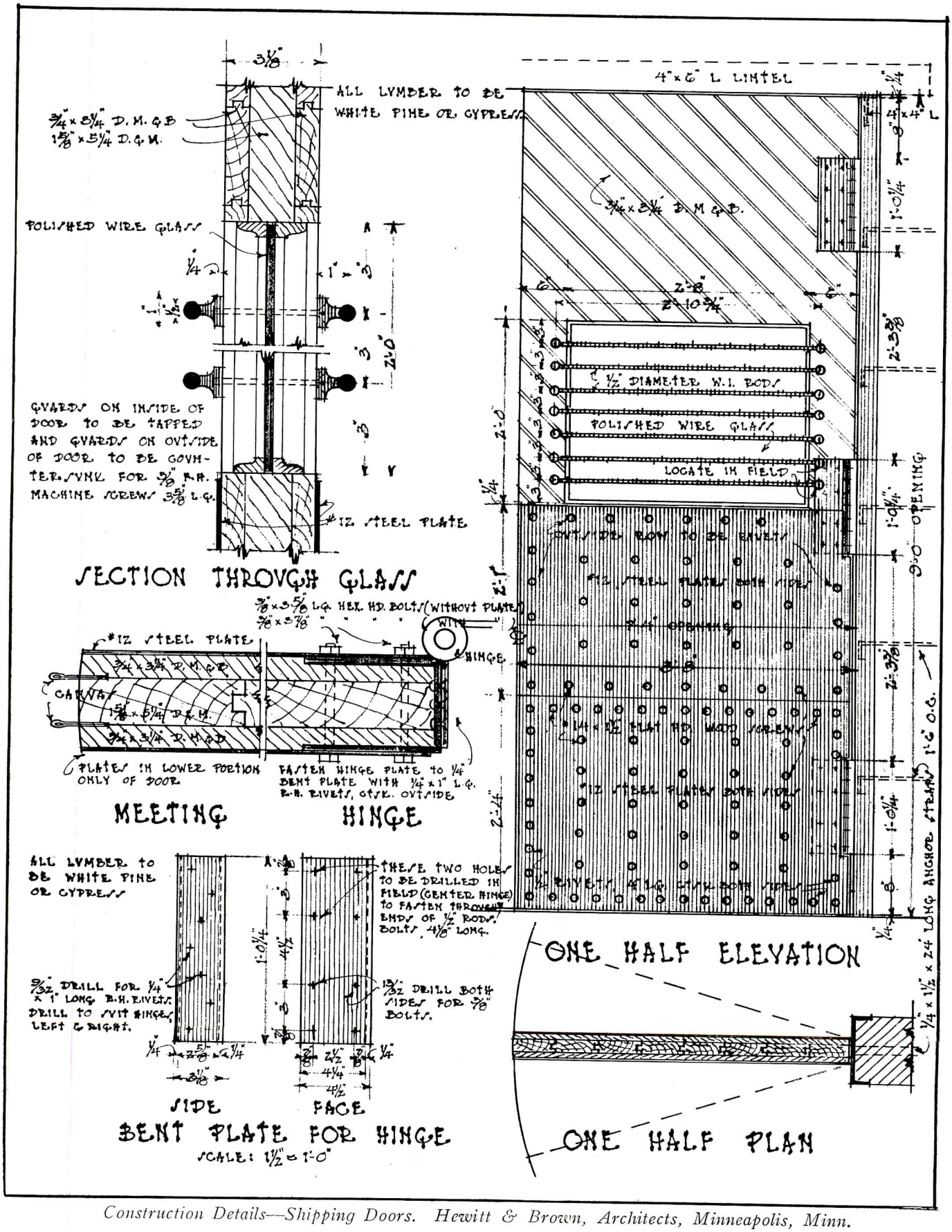
Other instructors on this tour will be Pedro J. Lemos, Director of the Museum of Fine Arts, Stanford University, Editor in Chief of School Arts Magazine and Albert E. Bailey, Professor of Religious Art in Boston University. The director of the tour will be Henry Turner Bailey, Director of the Cleveland School of Art. Mr. Bailey has a national reputation as an interpreter of art and as an inspirational lecturer.

Mr. Guptill is an instructor at Pratt Institute, an architect and a member of the firm of Bearse & Guptill, architectural illustrators, New York City.

The party will visit France, Switzerland, Italy, Holland and England. Full information about the tour can be had by writing to Mr. Guptill, 182 Emerson Pl., Brooklyn, N. Y.

REIMS, NOT ROUEN

AS MANY readers of PENCIL POINTS have probably noticed, the detail of Reims Cathedral published on Plate I in the January issue was labeled Rouen. Correct reference to this plate was made on the cover of the January issue.



Construction Details—Shipping Doors. Hewitt & Brown, Architects, Minneapolis, Minn.

HERE *and* THERE *and* THIS *and* THAT

Conducted by RWR

IT IS just as we thought it would be. The readers of PENCIL POINTS have expressed their approval of this little department for the publication of all manner of things in which we are all interested.

Remember, everybody is welcome. Send in your sketches, caricatures, questions, or interesting items of any sort and they will be considered. We do not guarantee to publish everything submitted but do not be bashful about sending in your contribution.

We got off to a bad start in publishing the verse "The Fifty-seven Lamps of Architecture" in our January number. This appeared in thé Saturday Evening Post several months ago and the author is Mr. Stoddard King. Our apologies to the Post and Mr. King for having published this verse without credit.

Nothing daunted we print the offering labelled "Song" contributed by "Oong Gow."

Song

The Seasons

The Projet Season first I praise
When order on the table lays,
And Client with his lucre'd maw
Proclaims his whims to draw and draw.

And next I deed respective prize:
Facade and brave perspective rise,
As chief and straw-boss eye the sketches
And raw recruits die making stretches.

The detail stage! My chorus lifts
As plagarist the file stuff sifts,
His inspirations to imbue,
Bring out the old, ring in the new.

And these lines from the pen of Miss R. B., office typist.

Almost!

Oh the sketches we make, and the coin we stake,
On the jobs that never go thru;
Oh the effort we make, and the pains we take
That each line shall be straight and true.

Oh the hours of toil, and the midnight oil
On the weary days we spend
But the Fates have willed that the hopes we build
Shall but vanish in the end.

On the cruel mirage, be it but a garage
They always are sure to say
"We have changed out plans," so it simply stands
"We don't build, why should we pay?"

Oh the bills come in, and the bank roll's thin
And the payroll's just at hand
But well we know that an owner can't know
And he never will understand.

Oh the architect, could he but collect,
He could travel from coast to coast
If his dreams came true, and the fees came through
On the jobs that he got—almost.

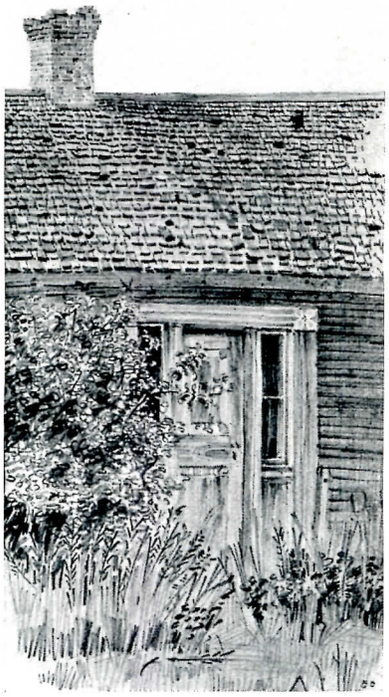
WE QUOTE from a paragraph taken from a letter from Mr. George Edward Dorman, architect. Mr. Dorman has so well stated what we are trying to do that we print the paragraph even though it makes us blush just a little bit.

As to your work with PENCIL POINTS. The greatest need in the profession today is that of men imbued with high professional ideals of service backed up with a fund of correct ideas as to how to go about serving, and I do not know of any magazine which is published for the draftsman which is going as far toward insuring this happy combination as is PENCIL POINTS. More power to your elbow.

THE manner in which Mr. Leon R. Pescheret spends his spare time when in New York is not at all according to the usual ideas. Mr. Pescheret found himself so interested in our buildings that he grabbed a pencil and sketching block and did seven clever sketches of various buildings in a couple of days. We are sorry that the limits of space permit us to publish only one, showing Police Headquarters, which apparently Mr. Pescheret saw only from the outside. Anyhow, we enjoyed his call very much and hope he will drop in again.

Sketch by Leon R. Pescheret

Here are a couple of sketches submitted by Mr. Edwin Olsen of Boston. Who will be the newcomer in the March number?



Old Abandoned Farmhouse, Ogunquit, Maine
Sketch by Edwin Olsen

HERE is a tough one. A New York architect writes as follows:

I am writing to ask you if you have or know of any standard for cubing a building. If so I would very much appreciate having a copy of same. Thanking you for your courtesy in this matter, I remain.

We cannot find any answer to this question. There seem to be several methods of cubing a building but none which can be called standard. If anyone knows of a court decision involving this point please send the answer to this department.

THE replies to the inquiry appearing here last month as to the best methods of filing plates has developed into a regular symposium. Mr. F. W. Ives, Ohio State University, Columbus, Ohio, submitted the following:

"For the purpose of saving worth-while plates and articles from magazines the best thing that I have found so far is the "Grip" Individual File Binder and Perforator, manufactured by the Cooke & Cobb Company, Brooklyn, New York. This may be had in substantial board covers or in several other styles. The binder mechanism of this folder file is arranged simply so that the single sheets being bound in it may be perforated for the staple with an ordinary pencil point. I have classified all of these materials and I find the various volumes very useful to me at times.

Mr. Donald Thornton Graf, Minneapolis, Minn., adds this to the discussion:

About a year ago it devolved upon me to install a filing system in the office in which I was working, the magazine plates being excellent in material but in such a chaotic condition that they were utterly usless. At that time it occurred to me that PENCIL POINTS could render the suffering magazine files a great service, and now that Walter B. Brown has started the ball rolling in your January issue, I am moved to try to add something to its impetus.

Enclosed is a portion of the system that I invented, and found to be very satisfactory. It is based upon the A. I. A. system for filing manufacturers' literature, which has proven its worth. The features which I tried to incorporate are—

1. Flexibility. A system which would be adaptable to large or small collections. In a small collection only the first major divisions need be used, and as the file grows the subdivisions may be added. The numbering system used in the A. I. A. construction classification was used for its easy readability and possibility of a greater number of divisions than nine, which is the limit with a decimal arrangement.

2. Simplicity. A system which would obviate the necessity of cards or cross-indices. The cross references that I found were necessary are in the catalogue index. No system can take care of a plate which has a nice door detail, a wrought iron lamp, and maybe several other features, all of which one wants to save. When this

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Tremont Street, Boston
Sketch by Edwin Olsen

occurred. I wrote on a yellow sheet, "Wrought Iron Lamp, see 11e11, Doorway to Mr. Smith's House" and inserted in the file of lamps. However, when one does not find the desired plate in the first division that occurs to him, the rest of the file is not locked up, he can look in the other likely divisions which are narrowed down to a very few.

The general outline is arranged alphabetically.

The file is arranged so that one ordinarily familiar with architectural styles could maintain it, as few as possible of the divisions depending upon style. I numbered every plate that went into the file so that even if they were allowed to accumulate after use on the boards for some time, it was the work of but a few minutes with a vertical filing case, to replace them all in their proper places.

3. Comprehensivenesss. The fact that about twenty-five thousand plates have been filed with this system by myself and friends shortly out of college who are assembling libraries, without finding any plate of value not taken care of by the file attests to its completeness.

Will be very glad to get the ideas of others on such a problem as this one, for surely many of your readers must have been confronted with it and have devised solutions and developed ideas. I hope, with Mr. Brown, that PENCIL POINTS will take this problem in hand and pursue it to a successful conclusion as they have other questions.

Good luck to "RWR" in his H&T&T&T!

Index for Magazine Plate File. See "Brickbuilder," April 1908, also.

General Index.

1. ADMINISTRATIVE and GOVERNMENTAL
2. BRIDGES
3. BUSINESS and COMMERCIAL
4. EDUCATIONAL and SCIENTIFIC
5. HOSPITALS and ASYLUMS
6. HOTELS and APARTMENTS
7. INDUSTRIAL PLANTS
8. MONUMENTAL
9. RECREATION and AMUSEMENT
10. RELIGIOUS and ECCLESIASTICAL
11. RESIDENTIAL
12. SOCIETY BUILDINGS
13. TRANSPORTATION and STORAGE
14. MISCELLANEOUS
15. OFFICE PRACTICE
16. HISTORICAL

1. ADMINISTRATIVE AND GOVERNMENTAL

1a Capitols, Houses of Parliament, Governmental Bldgs.
1b Government Department and Office Bldgs. (Natl., City, etc.)
1c Buildings used in Diplomatic Service (Embassies, etc.)
1d City and Town Halls, Municipal Bldgs.
1e Court Houses (see 1f2)
  1e1. Archive Bldgs.
1f Post Offices
  1f1. Post Offices and Custom Houses combined
  1f2. Post Offices and Court Houses combined
  1f3. Post Offices with any others
1g. Military
  1g1. Barracks, Military Post Bldgs.
  1g2. Armories
  1g3. Arsenals
1h. Protective and Corrective
  1h1. Police Stations (see also 1j1)
  1h2. Prisons, Penitentaries, Jails
  1h3. Reform Schools
  1h4. Workhouses.
1j. Fire Stations, Engine Houses
  1j1 Fire Stations combined with Police Stations

2. BRIDGES

2a Wood bridges
2b. Masonry Bridges, stone, brick, concrete
2c. Steel and Iron

8. MONUMENTAL

8a. Commemorative (for memorial buildings of special type such as "Memorial Auditoria," see Auditoria.)
8b. Funerary
8c. Tablets and Doors.

9. RECREATION AND AMUSEMENT

9a. Public Assembly
  9a1. Theatres and Opera Houses
  9a2. Stadia, Outdoor Amphitheatres, Observation Stands
  9a3. Municipal Auditoria
9b. Park Buildings
  9b1. Administration
  9b2. Refectories
  9b3. Zoological
  9b4. Band Stands
9c. Athletic and Competitive
  9c1. Baths, swimming and otherwise, Locker Bldgs.
  9c2. Billiard and Pool Rooms, Bowling Alleys
  9c3. Gymnasia, Turn Halls, Squash Courts.
  9c4. Rinks, Riding Halls and Schools.

12. SOCIETY BUILDINGS

12a. Fraternal
  12a1. College Fraternities and Sororities
  12a2. Masonic Temples
  12a3. Other Lodge Buildings
12b. Y. M. C. A. & Y. W. C. A.
12c. Country Clubs, (Auto, Golf, Tennis, etc.)
12d. City Clubs
  12d1. Residential
  12d2. Non-Residential
12e. Surburban Clubs
12f. Learned Societies, Benevolent Societies

Mr. B. O. Gamber of Detroit comes to bat with the following:

The request of Mr. Walter B. Brown, regarding the filing of plates comes at a good time and I should like to reply to it.

I have worked in a number of offices, with as many different filing systems, but the scheme which we are now using has many advantages.

The plates, carefully selected, are placed in legal size folders in a steel filing cabinet. The folders are of the bellows type and are properly labelled and numbered and arranged in the file in alphabetical order. The subject desired may be quickly found by selecting the proper folder, or by referring to an index.

Each plate is numbered, and when returned to the library it is placed in a basket. These returned plates are regularly filed in their proper places.

As this material is valuable, it receives good care, and the writer prefers it to any which he has used.

Your journal deserves its success for promoting this interchange of ideas, and fostering a real spirit of helpfulness and cooperation among the architectural fraternity.

Here is something entirely different. It looks complicated but it has its good points. Mr. Oliver Wilson of New York is responsible for it.

Mr. Brown has come up against the same difficulty that I faced some years ago, that of the best method of filing the accumulating mass of material into a system easy to operate.

It so happened, that having to use some material issued by the Lefax Corp. of Philadelphia in my studies, that I became interested in the Dewey system of Library Classification which is one of the systems that they suggest filing their material with.

Through the courtesy of the local circulating Library, I was enabled to borrow a copy of the detailed classification.

I had been filing my material in an arbitrary manner of my own, but it was not satisfactory. And here I

found a system already prepared by men and women who had spent their whole lives in classifying material and so I decided to use it.

For the benefit of those not knowing of the system, the following is a brief outline of it.

All knowledge is divided into ten divisions from 000 to 900; each division is again subdivided into ten divisions such as 700 to 710 and a third time such as 720 to 729. Any further division is done after a decimal point.

So useful is this classification that Mr. Ricker of the University of the Illinois undertook a very detailed classification of those sections of the general classification which have to deal with Architecture and Building, chiefly from 690 to 729.

The beauty of this system is this. All the work has already been done by others more fitted to arrange material in order. So why do unnecessary work? Secondly, kindred subjects are purposely arranged near together and there is no definite break throughout the whole classification, each subject gradually merging into the next. Thirdly, a number is far easier to remember than a long worded title or a system of letters and numbers. Fourthly, knowing the numbers, it is possible for one to go into a reference Library where they use this system and go at once to the sections to which you wish to refer without the necessity of long hunts through catalogues.

When filing the material, I have found it best to use a fifteen-inch-wide drawer filing cabinet and to trim the material so that the top of the folder can be seen.

Also to expedite finding the material I have gotten different colored filing tabs in which the numbers can be placed as follows.

All main divisions, such as 729 are in red tabs well to the left of the folder, then folders with a decimal point such as 729.3 there is a little green tab with the number 3 in it a little further to the right, and if further identification is necessary for numbers to two decimal places I use a yellow tab such as 729.36 where the 6 would be in a little tab. So that on looking at a drawer you see a line of red tabs to the left, then a greater number of green tabs and occasionally a line of yellow tabs. These tabs are bought in strips, made of colored celluloid with a space for slipping in headings with gummed canvas with which to fasten them onto the folders.

When filing, I arrange the material into the chief subjects, for instance all residential material goes into the folder 728 and later I file this material into its proper division as the folder increases to an abnormal size or as I need the material.

I hope that this is not too long a discussion of the subject, but perhaps an illustration of how it works in its subdivisioning might be helpful.

724.0	Renaissance and Modern History of Architecture. General topics, etc.
724.1	Renaissance Architecture General topics. 1500 to 1800.
724.15	Renaissance Architecture in Italy
.151	Cinquecento in Italy
.152	High Renaissance
.153	Decadence
.154	Baroque

Throughout the Historical part of the Classification of Architecture .05 is typical of Italy so that modern Italian is 724.95 which makes it very easy to remember the various divisions.

For instance .073 is the subdivision for the United States and so on.

If Mr. Brown, or any one else is interested in this system and would like to hear more about it, I shall be very glad to help them. It is worth while remembering however, to boss the system and not let the system boss you. I have changed the subdivisions in several places so that I can get better use out of it.

There is also a lengthy communication and classification of subjects from Mr. Paul V. L. Stewart of Cleveland. Unfortunately, because of lack of space, this cannot be included in the current issue, but we expect to publish it next month.

Sketch by O. McCrackin, of Hutchinson, Kansas.

HERE is a suggestion from Eric Fleming, New Brunswick, N. J. What has anyone to say about Mr. Fleming's idea?

> "Your registration of men engaged in the practice of architecture and engineering, who have not achieved the status of being in the practice of their profession as principals, suggests to me the fact that there is no society other than purely local gatherings to cement the 'Brotherhood of the Board' together, in the field of architectural men, before they have achieved that status. The position which PENCIL POINTS occupies and the want which it meets in the desires and ambitions of the 'Pencil Pushers', places it in a way to act as sponsor for such a brotherhood, in a way that would probably surpass expectations. Hoping that this suggestion is not untimely or impractical, I am
>
> Yours truly,
>
> (signed) ERIC FLEMING."

IN ITS series of contests to encourage individual creative work among the younger artists, Corona Mundi, International Art Center, announces a Contest for a Modern Costume, based on the style of Atlantis. The choice of subject for the contest at this time has been influenced by the recent excavations in Egypt as well as the brilliant examples of Mayan culture unearthed in Central America. It is felt that in these new discoveries of the beauties of the past history of man in an "Atlantean civilization," may be found vast material for application to modern design.

There will be three prizes of $100, $50 and $25. The judges will be Alfred Bossom, eminent American architect, Peyton Boswell, famed critic and editor of the International Studio, Howard Greenley, president of the Architectural League of New York, Samuel Halpert, American artist, and Louis L. Horch, the connoisseur and president of the Master Institute of United Arts. The contest will be closed on April 1st, 1924.

All information as to the conditions of the contest may be had by addressing, Corona Mundi, International Art Center, 310 Riverside Drive.

BALTIMORE takes a seat on the Band wagon. Here is a letter from the president of the class in architecture of 1923-4 Maryland Institute, with reproduction of the accompanying drawing.

The enclosed print may prove of interest. Aside from its holiday message it presents a gallery of the members of Class in Architecture, 1923-1924, Maryland Institute, Baltimore, Maryland. Each member of the class appears "done" by one of his collaborateurs (and as you will note) not necessarily a sincere admirer.

Incidentally, here you have a page of "Pencil Pointers," all ardent rooters for your publication. I am submitting this print for the newly-begun "Here and There and This and That" section.

With best wishes for your continued success, I am
Cordially yours
For Class 1923-24 Architecture
Maryland Institute—Baltimore, Md.
(signed) John A. Ahlers, President.

Now all together men and let's make this department for March a hummer!

Above is reproduced at reduced size the clever Christmas Greeting of the Class in Architecture of Maryland Institute, Baltimore, Md. Each member of the class is caricatured by some other member.

THE New York Architectural Bowling League, for reasons not explained to us, has gone and published a calendar. Maybe so the members won't forget to show up at the appointed times. Anyhow here's a reproduction of the drawing with the names of the various offices constituting the League in cypher.

New York Architectural Bowling League Calendar

THE AMERICAN ART STUDENT

THE January issue of *The American Art Student* contains much of interest. Particularly interesting and informative is the article "In the Studio of Thomas J. Fogarty," by Frank R. Southard. This article gives an intimate account of the way in which this well-known illustrator works and in doing so makes clear the methods by which book and magazine illustrations in general are made. The most valuable feature of this article is the lucid explanation of the method used by the artist in securing expressiveness in his work through the making of rapid studies of his model, supplemented by more careful studies of detail. There is also an article on "Etching as a Fine Art," one on "The Art of Color" and many shorter articles and items together with interesting illustrations. *The American Art Student and Commercial Artist* is published at 21 Park Row, New York, and the subscription is $2.50 a year, $3.00 foreign.

DETAILING STONE WORK

BY J. R. SCOTT

(*Continued from Issue for December,* 1923)

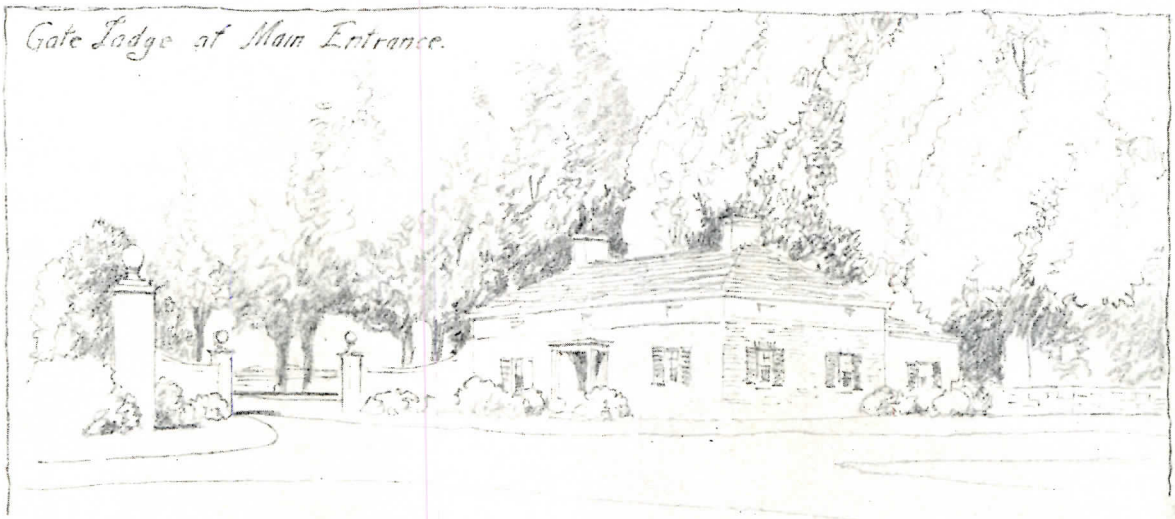
It is hardly necessary to give dimensions for every member of a large full size, but the over-all should be shown—and in agreement with the figures on the scale detail, which is not always the case. A draftsman often gets a detail of the section of a large Gothic arch, for instance, which shows the contour carefully enough, but has such short lines to indicate the wall line or the bed line that it is impossible to square it in order to find the height and projection. In drawing such a detail, almost always the first step is to lay out the location of the top and bottom beds, the wall line, and the extreme projection; if these lines are left to show on the blue print the correct sizes are thereby fixed.

Sometimes the architect omits the joint on a full size, and it is often difficult to work it in, especially if the section has small mouldings or carving filling the entire face and has been drawn with the stone occupying the full height allowance for stone plus joint, and perhaps has to line up with some feature of the adjacent stone as well. Sometimes he forgets the drips; whether specified or not, the draftsman likes to put them in for protection to the face of the stone, and often it is hard to find a place for them.

It is seldom wise to show isolated sections of moulded stones scattered about here and there on a sheet of details; show the beginning of the stones lying immediately above and below so that the stone draftsman can see the relation to them and can tell just how far back the finish is to continue. Show a portion of the frames of windows and doors so that he can know what fitting is necessary, exactly where the waterbar is situated, exactly where the threshold (or provision for metal threshold) must come, what depth in the wall the door sill must have to bring its back in just the right place, and how this back must be treated in order to fit the style and level of the flooring.

Show the steel that comes behind the stone; often the mere process of drawing it in place will bring up problems to be solved at once. Do not forget that splices and connections occupy space and require clearance, and that rivet heads usually have a projection. When using an angle with legs of unequal length for a lintel, indicate which leg is vertical and which is horizontal. Loose steel for lintels, etc., can generally be shifted a little to suit conditions, but its position should be indicated if possible, so that the contractor placing the steel will not have to consult with the stone setter to find out where it is to go, or, still worse, set it without consulting him. Much more important are cases where the stone has to fit around structural steel, but then usually there is a set of drawings to give all of this information. It might not be amiss to point out that often a few figures on the drawings will make it unnecessary for the stone contractor to consult the steel drawings at all; in any event they would show him the relation between the steel and masonry construction which otherwise is often quite difficult to establish.

Consider the balancing of the stone. The points mentioned above will often help to determine the proper thickness and the method of anchoring. The client gets no value received for stone in the wall, and it is therefore economical to use stone as thin as possible consistent with good practice. At the same time it should not be forgotten that the cut stone contractor is jealous of his reputation and is thoroughly anxious to have no failure attributable to him. When a piece of stone falls from the belt course, the layman blames the stone; he does not stop to question about unequal settlement of foundations, provision for taking up expansion and contraction in the steel structure, weakness of shelf angles, or how thin the stone had to be cut to clear the steel; to him it is the stone that failed, and self-evident that the fault is the stone contractor's.



Pencil Studies by Birch Burdette Long. Charles W. Leavitt, Landscape Engineer.

A little variation on the full size from the scale drawings is usually accepted without quibble, but the draftsman soon sees if much extra work or material is being crowded on and he is often human enough to try to strike a balance by saving elsewhere. Architects or their draftsmen are apt to be carried away with themselves and load on far more detail than they had previously indicated (and which might often be left off with advantage to the appearance of the buildings). Making the working drawings to large enough scale compels consideration of many points liable to be overlooked, insures sufficient stock, indicates the amount of cutting, saves some of the full sizing entirely, and makes the rest of it much simpler. Also, it enables the estimator to prepare a more accurate figure without having to make allowance to cover leeway in detailing.

On work usually turned, such as balusters, there is not much doubt as to what portions are to be left square, but sometimes the architect knows so well just what part of an urn or a special lamp standard is to be turned that he takes it for granted that everybody else knows it too. Perhaps he intends a baluster to be square in plan throughout its entire height, but fails to indicate it.

Another point frequently overlooked is the size of wood mullions in a multiple frame where the sill is to be jointed centrally under the mullion and the only dimensions are the glass sizes and perhaps the total opening. Without figures giving the distance from inside of sash to stone jamb and from sash to sash across the mullion, or a line of dimensions locating the center lines of the mullions, it is impossible to find where to joint the sill. Of course certain standards exist, but they often vary with different localities.

Speaking of glass sizes, why does the architect work backwards in this respect? Let him calculate his window openings if he likes, so that the glass will not run just over a stock size, but he should not presuppose that the stone draftsman knows just how the frame and sash are detailed. Figuring the stone openings themselves is far more satisfactory; it fixes the sizes for the stone contractor, and at the sash and door factory it is just as easy to take the dimension from the jamb line as from the glass. In the case of brick walls, it is out of the question to split a course of bricks to make the lintel fit the frame, and the custom is to nail on the blind stop tight against the lintel; this is good enough but it would be just as easy to make the frames to the exact height. It is neither very expensive nor wasteful to trim a half-inch or so from the top of a sheet of glass.

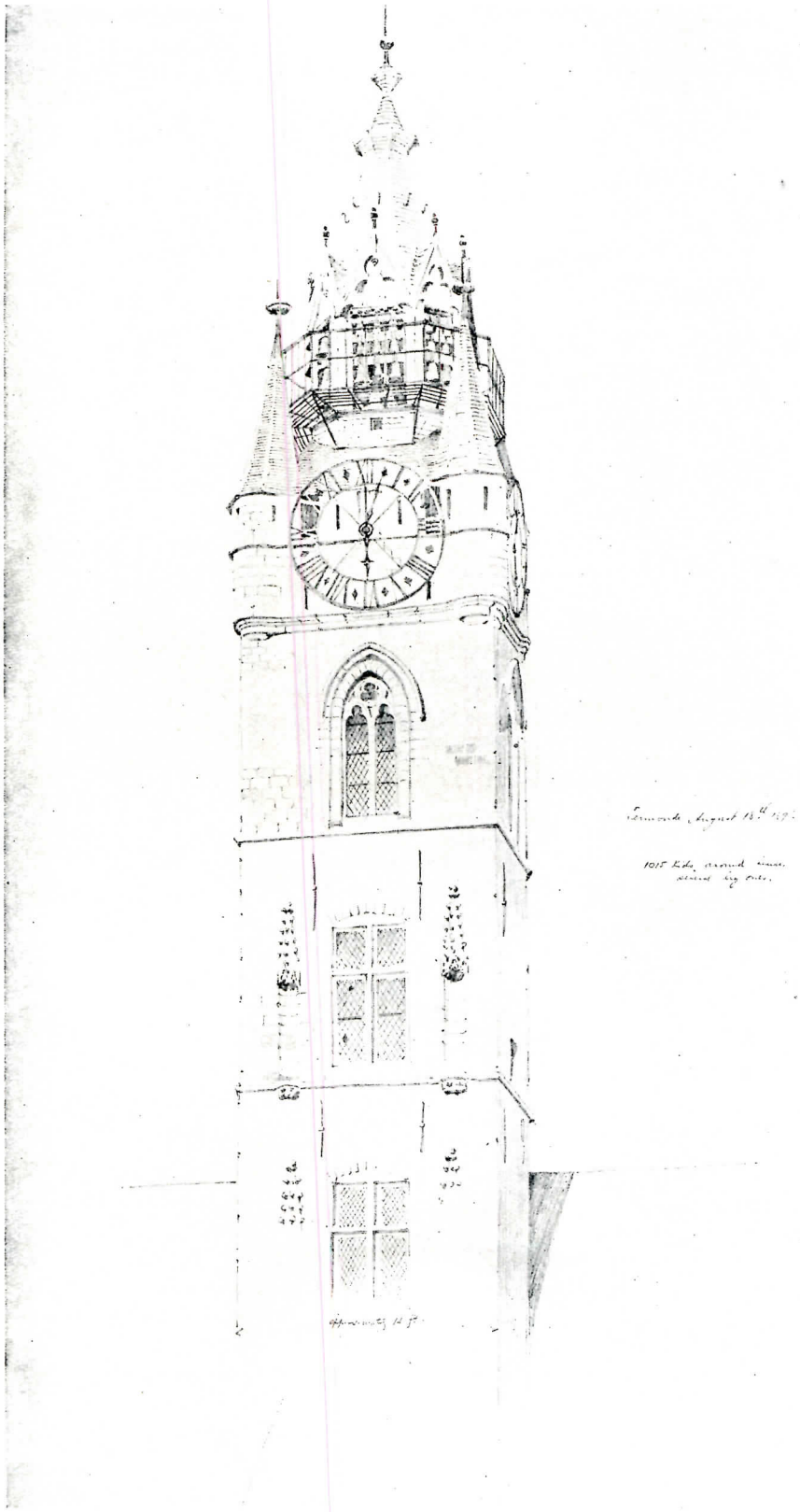
Metal "factory sash" present a situation somewhat different to that encountered with wood frames. Here is more standardization of sizes and no leeway for fitting the job. As these sash (especially the standard sizes) are chiefly confined to the plainest work, where the design is governed almost entirely by structural and not by architectural considerations, any discrepancies in the lining up of the top of the sash with the brick joints may usually be overlooked.

There is this to be considered when using metal factory sash or metal casements with stone or brick, and that is the location and detail of the steel at sill, jamb and lintel. Almost every manufacturer uses sections and combinations of sections differing to some extent from all others, and the architect and his draftsman should be sure of just what make and section has been ordered (and this is not always the one specified) before he begins his detail; or he should make certain that the stone company be informed of the exact requirements of the particular sash manufacturer, which can usually best be done by having the latter send him a copy of the section approved by the architect.

The working drawings should indicate somewhere the position of adjoining buildings, if any. This is for the architect's own benefit as well as for the contractor's. It is surprising how frequently it happens that a base course has to be cut off at the property line instead of returning around the corner as shown, or how a cornice has to have its return projection greatly decreased or entirely cut off because there is no room for it to overhang on the sides. And even if this point has been provided for, the exposure on the side should be shown, for there is nothing gained by returning the stone a couple of feet when a permanent building touching it is set back only a few inches.

Some architects would overlook none of these points, others might miss a good many of them. The architect does not always consider the psychological effect of carefully detailed drawings. Certainly to the more or less highly trained stone draftsman it makes the greatest difference. When on unrolling a set of blue prints he finds well executed drawings with all the little details considered, almost unconsciously he sets for himself the same high standard, with the result that the owner gets a better building at not one penny additional cost and frequently with the saving of an appreciable sum for extras, and the architect has added one more to the list of buildings he is proud to claim as his creations.

Pencil Sketch by A. Leslie Perry



Pencil Study by Albert Kahn

THE SPECIFICATION DESK

A Department for Specification Writers

MISCELLANEOUS ITEMS OF CONSTRUCTION PART XV

By Otto Gaertner

In this series of notes Mr. Otto Gaertner, A.I.A., Associate Member American Society of Civil Engineers, is treating of a number of the minor matters of construction that are troublesome unless the architect happens to have met a similar problem previously—matters of a more or less special nature.—Ed.

Garages (Continued)—An emergency release is a device placed in the elevator car where it can easily be reached by the operator in case of fire, accident, panic or other emergency. It provides a means of rendering the car operative independent of the position of car gates or landing doors provided with electric contacts or interlock devices.

There are, of course, numerous devices which tend to increase the safety and efficiency of the elevator equipment, such as limit devices, elevator brakes, operating devices, slack rope devices, reverse phase relays, car leveling devices, car locking devices, speed governors, automatic safeties or controls, signal systems, grease and oil cups, guide lubricators, et cetera. Some of them are required by building codes, factory and labor laws, insurance and other regulations while others, although not mandatory, are certainly desirable.

An important thing to be considered is the type of electric current that is available, whether direct or alternating. Some of the equipment cannot be used with both types of current and the cost of the installation may be greatly affected by the type of current to be used. Also it may be necessary to provide transformers to change the current so that it may be used for the signal system or other parts of the apparatus. An outlet should be provided midway on the height of the shaft, to which is connected a flexible cable for current to supply the ceiling light in the car. An electric feeder of ample size to suit the elevator machine motor should be brought inside the machine room and should be provided with fuse blocks, fuses, and cut switches, preferably of the enclosed safety type.

We have mentioned wire mesh elevator shaft enclosures and shaft doors but it would be well to touch upon the construction of the shaft itself in considering general garage construction with the idea of reducing fire hazard. Shafts should be enclosed with walls of fireproof material such as concrete, brick, terra cotta blocks, or gypsum blocks of a suitable composition that will not be softened or crumbled by a stream of water in case of fire. Brick walls should be at least eight inches, concrete at least six inches and three inches if properly reinforced, and terra cotta and gypsum blocks should be at least three inches thick. Such walls should be properly reinforced with steel members unless they are supported on fireproof material at each floor. In the block walls door and window openings should be stiffened with iron angles or channels. When altering an existing building it is often difficult to construct the shaft this way. Another, but less effective method of construction, is to erect metal studding of one inch steel channels about twelve inches apart fastened at the floor and ceiling, and plastered on metal lath applied on both sides of the channels. This method can easily be used in non-fireproof buildings. The plastering should be continuous for the full height of the shaft and such plaster should preferably be cement plaster one inch thick applied in several coats.

There should be no openings into the shaft except door openings and windows to the outer air, the window openings being protected or marked to identify them as shaft openings, as has been mentioned in a previous installment of this article. If the elevator machinery is in a room at the bottom of the shaft and connecting to the shaft, both the bottom of the shaft and the machinery room should be enclosed with fireproof material, as mentioned above, and the door openings into the machinery room should be provided with fire doors as specified for the shaftway.

The top of the shaft should extend at least three feet above the roof and should be enclosed with the same fireproof construction and if possible three-quarters of the area of the top of the shaftway should be covered with a metal skylight of plain glass, or any other except wired glass, glass being not more than three-sixteenths of an inch thick and not having an area of more than seven hundred and twenty square inches for any one piece. The plain glass can be quickly broken by firemen to give the smoke and flames an opportunity of escaping from the shaft and enable them to fight the fire more advantageously. The glass can be protected from damage from above by placing a wire mesh screen about six or seven inches above it. Such a screen should be of number 12 gauge wire or heavier, and the mesh should be between three-quarters of an inch and one inch. The screen should project beyond the glass for about the same distance as it is above it. A skylight cannot always be used when the elevator machinery is at the top of the shaft and sometimes the shaft does not extend to the top story, in which case it should have fireproof construction for the top as well as for the walls. Often when a skylight is impracticable, if the shaft is high enough, a window of the same area, or several windows aggregating the same area, can be placed at least three feet above the roof and serve the same purpose.

There are no rules stating just when a garage shall be of fireproof or of non-fireproof construction, but it should be fireproof whenever the initial cost can be met. It may be interesting to know that the Bureau of Buildings of the City of New York classes garages under business buildings and requires such buildings to be of fireproof construction when they exceed fifty feet in height and are used as garages, motor vehicle repair shops or oil selling stations within the fire limits of the city and within the suburban limits. Such buildings which existed as non-fireproof buildings when the building code went into effect are not required to comply with this rule except when they are altered or when they are non-fireproof buildings being converted into garages, motor vehicle repair shops or oil selling stations. When such buildings are altered or converted, the columns and girders, unless of fireproof construction, and all wood floor and roof construction shall be covered and protected on all sides with such fire-retarding materials and in such a manner as may be prescribed by the rules of the Board of Standards and Appeals. The one exception to this, however, is that an existing one-story building without a basement or cellar may be permitted to omit this protection for the roof construction.

New buildings used for these purposes may be constructed of frame construction in an approved manner, provided that such a building does not exceed twenty-five feet in height, does not exceed five thousand square feet in area and does not cover, together with other frame buildings, more than eighty per cent of that part of the lot or plot area on which they occur and which is not already covered by fireproof or non-fireproof buildings.

Sheet metal or other approved noncombustible and weatherproof material is generally permitted for the walls of garages and similar buildings provided that such a building is not more than one story high with side walls not exceeding fifteen feet in height and provided that the area covered does not exceed one thousand two hundred and fifty square feet. Also all the sides, except for the necessary door and window openings, and the roof of the building shall be of the same construction.

Sheet metal used in this way shall not be less than number twenty-six gauge in thickness. Galvanized iron sheets on steel frames are generally used in this construction.

The Bureau of Buildings of the City of New York also restricts the use of buildings for garage purposes if they are at the same time put to other uses. For instance, no permit for a storage garage will be issued for any building occupied as a tenement house, hotel or lodging house, nor for any building where paints, varnishes or lacquers are manufactured or kept for sale, where drygoods or other highly inflammable materials are manufactured or kept for sale, and where rosin, turpentine, hemp, cotton or any explosives are stored or kept for sale. The prospective garage owner not coming under this jurisdiction can bear these conditions in mind and avoid them in other localities as the fire hazard is as bad for him as for the other man's business. For the benefit of the public further restrictions are placed on the issuing of garage permits by zoning laws and by the requirement that a garage may not be within twenty feet of the nearest wall of a building occupied as a school, theater or other place of public amusement or assembly. Renewals of permits may be granted, however, where a garage was in operation prior to the opening of the school, theater, or other place of public amusement or assembly, or where it has been in continuous operation under a permit issued prior to the enactment of the present building code. Also a permit may be issued for a garage erected within twenty feet of a building occupied as mentioned above when the garage has no frontage on the same street with any frontage of such a building, and when the wall or walls of the garage adjacent thereto are constructed of brick, stone or concrete unpierced by door, window or other openings for a distance of at least twenty feet from the building.

A LETTER ON SPECIFCATION WRITING FROM ARTHUR M. DUNCAN.

THE writer was fortunate a few days ago in catching the editor when he had a few moments to spare and having an informal chat on various topics which might prove interesting to the architect, his specification writer and the draftsman.

The line of least resistance in writing the specification seems to be the getting out of a bunch of ancient documents, picking out the one which seems to best suit the case, sharpening the blue pencil, putting in a hurry call to the the office boy for the scissors and paste pot and starting in.

We remember having seen an old curio of a hand written specification for a Civil War warehouse in the leather district of the "Swamp" and many of the paragraphs in our "key" specification which we are about to use on the problem at hand seem strangely familiar. Through just how many generations this specification has descended we can scarcely imagine, but we know it is still alive and doing business.

Where the beams were oak and white pine we change them to spruce and yellow pine, and the black walnut and ash trim we alter to sap gum and oak.

The concrete is "deposited in six inch layers, carefully tamped until the water flushes to the top" and not further agitated or jarred in any way under the most severe penalties.

We suppose if a motor truck rumbles near our footings they must be dug out and put in again. (In this age of bootlegging trucks in the wee sma' hours the problem is going to be a hard one to take care of our anemic concrete work.)

The beams are framed with "tenon and tusk" and we begin to wonder if the carpenter still possesses the two-handed boring machines that our great grandfather carpenter used to use as he sat astride a pile of white pine beams and drove his 1½ inch augur into the mortise.

However, the specification must be rushed as the drawings are ready to print, so we struggle with the old wreck and make the best of it, hoping the builders won't submerge us with phone calls asking us if we really mean what we say. I am sorry to say that I have seen, as specification writer and as estimator in a builder's office, many such specimens of specifications—and at the same time accompanied by a beautifully drawn set of plans all clearly and completely figured and noted indicating much thought and time spent on the design. I think the answer to that is that the ratio of time allotted to the preparation of the specification as compared to the time given to the drawings is all wrong. The one is such an inseparable part of the other that its importance must be realized and sufficient time given for its study and preparation and checking with the drawings.

An outstanding feature of the average specification is the constant repitition of stock phrases and terms such as "hereinbefore mentioned," "Approval of architect," "as directed," "guaranteed," "first-class," "as per rules of Board of Fire Underwriters and Building Law," etc., etc.

All of these descriptive and limiting phrases can be collected under the headings of "Workmanship" and "General Requirements" clearly stated in a few clauses and then forgotten for the rest of the specification. If these solemn warnings hiding all sorts of dire penalties have no weight with the contractor when he reads them once, it won't produce a change of heart even though they appear on every page.

This "as directed by architect" is one of our best sellers. If you get stuck in the description of a material or finish just insert the magic words—and figure it out on the job.

The meat of the specification is to state what the materials are and where they are to be used and to give the bidder credit for knowing his product and the most up-to-date methods of workmanship. To keep track of the improvements in machinery for drawing metal mouldings and attempting to describe the only process which you will permit the sub to use is a Herculean task and takes much midnight oil.

I think we would all learn a lot if, through your columns, we were to get criticisms by the general contractor and the sub-contractor on the architects' specifications. They could tell us exactly of the pit-falls encountered and the "trick" clauses that make accurate and safe estimating very difficult.

For the contractors to criticise the architects' specifications is a very delicate matter and few would attempt to do it on an operation they were figuring, but it would be a very valuable thing to have such criticism and especially on a larger building such as an office building or apartment house where units of all kinds are repeated by the hundreds and where the bidder's factor of safety of a few dollars due to lack of definite information or vague description means an estimate out of all proportion to the work involved or a serious loss.

PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER.

Any publication mentioned under this heading will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS *by the firm issuing the publication. When writing for any of these items please mention* PENCIL POINTS.

Handbook of Hollow Building Tile Construction.—Handbook covering the subject. Many construction drawings covering wakksm floors, window openings, chimneys, roof details, etc. Specifications and much useful information for architects, draftsmen and builders. 110 pp. 8½ x 11. Hollow Building Tile Assn., Conway Bldg., Chicago, Ill.

Concrete for Town and Country.—A service book of information useful to the architectural profession. Covers completely the various uses of concrete. Detail drawings, tables, specifications, etc. Fully indexed. 190 pp. 8 x 11. Lehigh Portland Cement Co., Allentown, Pa.

Crittall Casements.—Catalog No. 22, profusely illustrated with exterior views, sections, details, etc. Includes standard and special hardware. 76 pp. 9 x 12. Crittall Casement Window Co., Detroit, Mich.

The Pergola Album No. 30.—Illustrating many types of pergolas in their settings. Very useful to those interested in country houses and grounds. 32 pp. 8 x 11.

Hartmann-Sanders Co., Elston & Webster Aves., Chicago, Ill.

Presteel Lumber Manual.—Handbook of information on metal lumber for a variety of uses. Tables, dimensions, detail drawings, data on walls, partitions, roofs, floors, etc. 56 pp. 6 x 9. North Western Expanded Metal Co., 407 Dearborn St., Chicago, Ill.

The Book of Masterbuilt Floors.—Loose-leaf portfolio on subject of floorings for various types of buildings. Complete technical composition, standard specifications and much useful data. 36 pp. 8½ x 11. Master Builders Co., Cleveland, Ohio.

Town and Country Buildings.—Brochure illustrated with photographs and drawings, floor plans, garages, etc. 32 pp. 8½ x 11. Southern Pine Assn., New Orleans, La.

Published by the same firm "School Architecture," illustrated booklet on the subject and "The Standard Moulding Book," illustrated with full size profiles of a wide variety of excellent mouldings.

Iron Fence Designs.—Book B. Illustrations of a wide variety of iron fence designs suitable for many uses. Entrance gates, ornamental lanterns, etc. 80 pp. 9 x 12. Stewart Iron Works Co., Cincinnati, Ohio.

Kohler Specifications.—Loose-leaf book containing illustrations of the Kohler line of plumbing fixtures with specifications therefor. 8½ x 11. Kohler Company, Kohler, Wis.

Published by the same firm "Enameled Plumbing Ware," booklet describing processes of manufacturing and illustrating correctly equipped bathrooms and kitchens and many special ties. 48 pp. 5½ x 8.

Artist's Materials.—Complete handy catalog of artist's materials, drawing instruments, etc. Fully indexed. 140 pp. 5 x 6½. Devoe & Raynolds Co., Fulton & William Streets, New York.

Casement and Vertical Fixtures.—Specification portfolio with illustrations, details and complete data. 8½ x 11. The Williams Pivot Sash Co., Cleveland, Ohio.

Coburn Handbook.—Catalog No. 51. Loose-leaf, illustrates and describes complete line carrying track systems, sliding door hardware, fire doors, etc. Detail drawings, price lists, etc. 8½ x 11. Coburn Trolley Track Mfg. Co., Holyoke, Mass.

Roof Flashing Handbook.—Details and specifications. Blue prints, construction drawings. 48 pp. 6 x 9. The Barrett Company, 40 Rector St., New York.

Portfolio of Color Plates.—Series of color plates showing exteriors and interiors tastefully treated. All the important rooms of a house are considered with many details. National Lead Co., 111 Broadway, New York.

Tapestry Brickwork.—Brochure illustrated in color containing both exterior and interior treatment. 48 pp. 8 x 11. Fiske & Co., 25 Arch St., Boston, Mass.

The Roof Beautiful.—Brochure illustrated in color on the subject of roof treatment. 8 x 11. 32 pp. Ludowici-Celadon Co., Monroe Bldg., Chicago, Ill.

Architectural Woodwork.—Attractive portfolio illustrated by photographs and a series of drawings by Chester B. Price. 32 pp. 9 x 12. Matthews Bros. Mfg. Co., 52 Vanderbilt Ave., New York City.

Bronze Tablets.—Catalog T. Looseleaf portfolio illustrated in photogravure showing wide range of tablets for memorials and other purposes. 70 pp. 9 x 12. The Gorham Co., Providence, R. I.

Raymond Concrete Piles.—Handbook on the subject with illustrations, detail drawings and much useful data. 60 pp. 8½ x 11. Raymond Concrete Pile Co., 90 West St., New York City.

Frame Construction Details.—Book of 28 full page plates covering subject of frame construction as applied to the residence problem. Three types of construction are fully shown and described. 8½ x 11. National Lumber Mfrs. Assn., 750 McCormick Bldg., Chicago, Ill. Price $1.00 per copy.

Handbook of Ornamental Iron and Wire Work.—Catalog No. 8. Covers subject of grilles, window guards, desk and counter railings and many other spe-

Your Home Screened the Higgin Way.—Attractive illustrated booklet on subject of screening and weather-strips. 14 pp. Color plates. 8½ x 11. Higgin Mfg. Co., Newport, Ky.

American Walnut.—Booklet setting forth the qualities and uses of this wood. Many attractive illustrations. 48 pp. 7 x 9 American Walnut Mfrs. Assn., 616 South Michigan Blvd., Chicago, Ill.

Medusa Waterproofing.—Booklet on the subject setting forth uses, methods of application, etc. 36 pp. 7 x 9. Sandusky Cement Co., Cleveland, Ohio.

Architectural Ornamental Iron Work.—Catalog on the subject profusely illustrated by drawings and photographs. 66 pp. 8½ x 11. Hughes, Keenan Co., Mansfield, Ohio.

Modern Furnace Heating.—Treatise on subject as applied to dwellings, churches, stores, etc. 48 pp. 6½ x 9½. Hess Warming & Ventilating Co., 5 No. La Salle St., Chicago, Ill.

cialties. Convenient pocket size. 175 pp. 4 x 5½. Buffalo Wire Works Co., Buffalo, N. Y.

Structural Waterproofing.—Handbook on the subject of interest to architects, draftsmen and engineers. Specifications, detail drawings. 40 pp. 8½ x 11. The Truscon Laboratories, Detroit, Mich.

Structural Pressed Steel.—Booklet dealing with floors, roofs and partitions. Many illustrations, diagrams and details. Tables. 24 pp. 8½ x 11. Truscon Steel Co., Detroit, Mich.

Book of Hardware Designs.—Profusely illustrated brochure covering plain and artistic hardware. 75 pp. 5½ x 9½. Sargent & Co., New Haven, Conn.

The Banking House in Art Metal.—Illustrated portfolio covering equipment of bank buildings throughout. Furniture, grilles, railings, filing equipment, bank vault equipment, etc. Detail drawings. 72 pp. 8½ x 11. Art Metal Construction Co., Jamestown, N. Y.

Frink Lighting Service for Hospitals.—Catalog covering special lighting equipment required for this type of building. 12 pp. 8½ x 11. I. P. Frink, 24th St. & 10th Ave., New York City.

Published by the same firm "Lighting Service for Stores," 24 pp., and "Picture Lighting," 24 pp.

The Waterproofing Handbook.—Complete information on the subject in convenient form. Diagrams, tables and other data. 96 pp. 6 x 9. General Fireproofing Co., Youngstown, Ohio.

Better Built Homes.—Portfolio covering subject of woodwork for the small residence. Many attractive designs of small houses with exterior and interior details, color plates, etc. 8½ x 12. Curtis Companies, Clinton, Iowa.

"Permanent Furniture," attractive booklet on window seats, mantels, china cupboards, sideboards, dressers, etc. 50 *pp.* 5½ x 7. *"Interior Doors and Trim." Uniform in style with the above. "Windows for Better Built Homes." Uniform with above. "Entrances and Exterior Doors," another number of the same series. "Stair and Stair Parts." Covers subject indicated. "Porches and Exterior Woodwork." Uniform with the above.*

Modern Homes.—Illustrations and floor plans of small houses suitable for interpretation in wood construction. 50 pp. Southern Pine Assn., New Orleans, La.

Condulets.—Catalog No. 2000. Complete handbook on subject of electrical specialties. Handy pocket size. 714 pp. Thumb indexed, limp covers. Crouse-Hinds Co., Syracuse, N. Y.

Modern School Lighting.—Bulletin No. 344. Covers subject from a technical standpoint. Much engineering data. 36 pp. 6 x 9. Holophane Co., 342 Madison Ave., New York City.

The Pedestal Pile.—Complete description of this type of concrete pile. Drawings, diagrams, installations, etc. MacArthur Concrete Pile and Foundation Co., 55 John St., New York City.

Caldwell Tanks.—Illustrated handbook on subject of tanks for all uses, both industrial and in connection with various types of buildings and country estates. Accessories. 92 pp. 8 x 11. W. E. Caldwell, Inc., Louisville, Ky.

Arkansas Soft Pine Handbook.—Text and moulding designs, grading rules, diagrams and much useful data. 62 pp. 8½ x 11. Arkansas Soft Pine Bureau, Little Rock, Ark.

Portland Cement Stucco.—Booklet on the subject with large details showing various types of panels. Typical construction details. 8½ x 11. Portland Cement Association, 111 West Washington St., Chicago, Ill.

Measuring Tapes and Rules of Every Description.—Catalog No. 10. Shows complete line of tapes, rules, protractors, etc., for architects, draftsmen and engineers. 122 pp. 6 x 9 in. Lufkin Rule Co., Saginaw, Mich.

Flush and French Doors.—Catalog F. Illustrated with many full-page color plates showing full line of panelled and plain doors and French doors. Details of construction and plates showing interior treatment. 80 pp. 8½ x 11. Roddis Lumber & Veneer Co., Marshfield, Wis.

Duriron Acid-proof Drain Pipe.—A handbook for architects and engineers covering layouts for laboratories and other conditions involving the problem of pipe corrosion. Much valuable technical data. Sectional drawings, tables, specifications. 20 pp. 8½ x 11. The Duriron Co., Dayton, Ohio.

Berloy Building Materials.—Handbook for architects, draftsmen and specification writers, covering all types of metal lumber for a wide variety of uses. Covers floor construction and many other matters of particular importance. 400 pp. Handy pocket size. Bound in library buckram. Berger Mfg. Co., Canton, Ohio.

Weisteel Compartments.—Catalog No. 11 describing compartments of all types. Blue prints showing construction and method of erection. Specification, including hardware. A useful book to all in any way interested in industrial buildings, public buildings, schools, hospitals, etc. 32 pp. 8½ x 11 in. Henry Weis Mfg. Co., Atchison, Kan.

Detail Manual.—Hand book with detail drawings devoted to screening, storm door hardware, blind hardware, garage hardware, bolts and butts. Carefully compiled, and valuable reference work. Loose-leaf. 118 pp. 7½ x 10¾. Ask for "Manual P. T." The Stanley Works, New Britain, Conn.

Architectural Detail Folio.—Loose-leaf folio containing 26 plates of detail drawings showing various types of elevator door hangers and other hardware for use in connection with elevator doors. A valuable adjunct to any working library. Size of plates 11½ x 16. Size of portfolio 8½ x 11. Richards-Wilcox Mfg. Co., Y-21, Aurora, Ill.

Asbestos Protected Metal.—Bulletin 71. Describing this metal and its uses for industrial buildings. Much engineering data, diagrams and sections. 24 pp. 8½ x 11. H. H. Robertson Co., Pittsburgh, Pa.

Soss Invisible Hinges.—Booklet showing details and specification data. Hinges for furniture, cabinets and general use in buildings. 24 pp. Soss Mfg. Co., Grand Ave. & Bergen St., Brooklyn, N. Y.

Wall and Ceiling Handbook.—Data on wall and ceiling construction for the residence. 16 pp. 5½ x 7¼. The Bostwick Steel Lath Co., Niles, Ohio.

Limestone Homes.—Portfolio of a series of designs prepared by a leading firm of architects. 12 rendered perspectives, floor plans and complete information. 8½ x 11. Indiana Limestone Quarrymen's Association, Box 784, Bedford, Indiana.

Refrigerating Machines.—Catalog and handbook illustrating and dsecribing modern systems of refrigeration. Diagrams, specifications, tabular matter, etc. 8½ x 11. 32 pp. Lapham-Perkins Engineering Corp., 30 Church St., New York.

Tablets and Monuments in Bronze.—Illustrated booklet showing many examples of memorial and other tablets, bas reliefs, etc. 32 pp. 6 x 7. John Polachek Bronze & Iron Co., 494 Hancock St., Long Island City.

Central Cleaning Systems.—Descriptive booklet profusely illustrated on the subject of modern vacuum cleaning installations, suitable for all types of buildings. 8½ x 11. 32 pp. Spencer-Turbine Cleaner Co., Hartford, Conn.

Weatherstrip Manual.—AIA Classification No. 19C14. Technical booklet covering the subject. Monarch Metal Products Co., 4995 Penrose Bldg., St. Louis, Mo.

Panic Exit Locks.—Catalog No. 20 covering gravity and mortise types of exit locks for schools, theatres and all other buildings requiring such equipment. Sectional drawings showing operation. 32 pp. 8½ x 11. Frank F. Smith Hardware Co., 87 Clay St., Newark, N. J.

Color Harmony in Floors.—Booklet covering subject of floor treatment from entirely new angle. Maple Flooring Mfrs. Assn., 1082 Stock Exchange Bldg., Chicago, Ill.

Present Day Schools.—Illustrated brochure covering the application of terra cotta to modern school buildings. 32 pp. 8½ x 11. National Terra Cotta Society, 19 West 44th St., New York City.

Better Banks.—Illustrated brochure treating of modern bank buildings, large and small. 32 pp. 8½ x 11. National Terra Cotta Society, 19 West 44th St., New York City.

Color in Architecture.—Brochure illustrated in color and with numerous engravings in sepia, on the basic principles of the application of color in available mediums. 8½ x 11. 38 pp. National Terra Cotta Society, 19 West 44th St., New York City.

Atlantic Terra Cotta Monthly Magazine.—Vol. 6, No. 8. This issue deals with Terra Cotta in combination with other materials illustrated with photographs, details and two full page drawings showing construction. Atlantic Terra Cotta Company, 350 Madison Ave., New York City.

FROM the *News of the Baltimore Museum of Art,* the publication issued from time to time by The Baltimore Museum of Art, we reprint the following items of general interest:

Art Museums in the United States

During the past twenty years many notable art museums have been established. Forty-six cities have a fine building specially erected to house the art collections. In San Francisco the fourth gallery will soon be opened to the public; in New York there are six important buildings and many smaller public collections. In the State of Ohio, five cities have important art museum buildings.

The character and success of many of these art museums has been due to some great initial gift by one or more public spirited citizens. In other cases the membership has been built up slowly by the devoted service of a small group of men and women with municipal support as soon as the value of the work has been proved. The Metropolitan Museum in New York and the Art Institute of Chicago, the two largest art museums in the country, erect one unit of their building after the other as funds permit. Both have received many large bequests, often from unexpected sources, such as the Rogers bequest of over $5,000,000 to the Metropolitan Museum of Art.

In Detroit $40,000 was subscribed by the incorporators. Later $100,000 was raised for a building which was opened in 1888. Gifts followed rapidly. Recently the City has contributed ground for a new building and makes an annual appropriation toward maintenance.

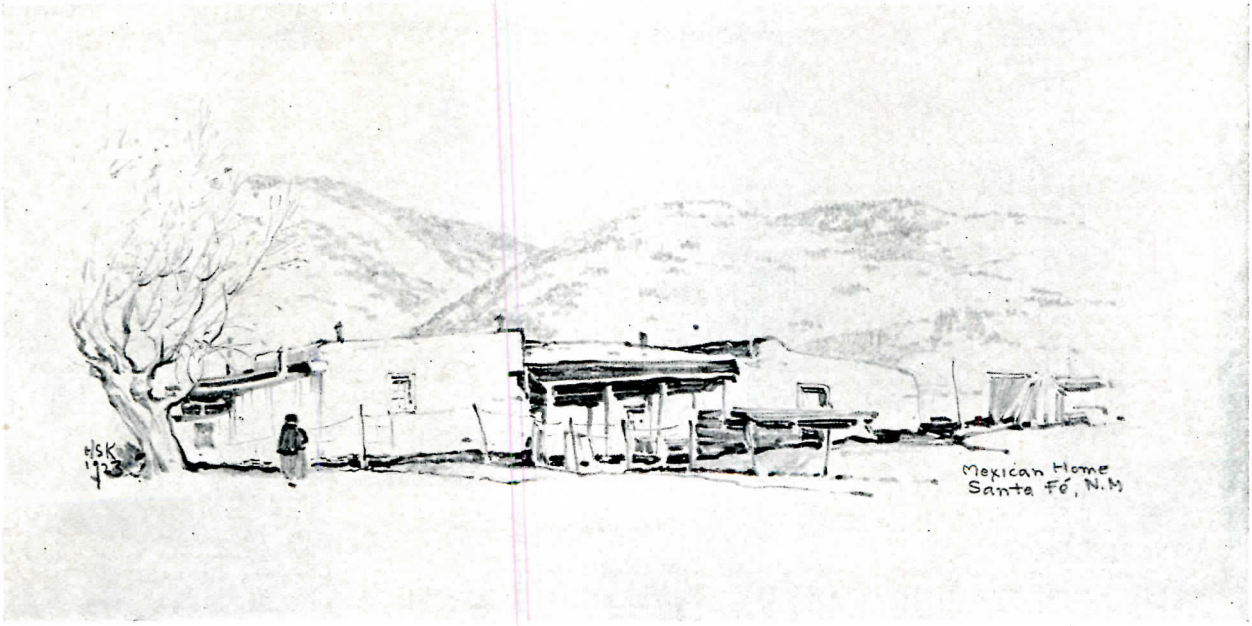
In Toledo a remodeled home, lent by the President, was occupied from 1902 until 1912. The present ground and building are valued at $400,000; of this half was the gift of President Libbey and the balance was raised by popular subscriptions varying from 10c. to $15,000.

Importance of Art to the Community

Art is not for the "few." Art is for the "many." It touches closely the needs of the community. The eight-hour day has brought increased leisure. Interest in and understanding for that which is beautiful and inspiring will bring into leisure hours influences and occupations tending to counteract all that is vulgar, brutal and degrading. Toward that end one of the most potent instrumentalities is the museum of art.

"What this country needs more than anything else is education in aesthetic appreciation. Through this knowledge the City will profit in dollar and cents value and the State and Nation will gain standing."

"The real purpose of life is growth—we either grow or we wither and are sloughed off. This is as true of communities and institutions as of individuals. The growth that has been started by the Baltimore Museum of Art is reaching out and touching many interests. The individual serves the City, the City serves the State, the State serves the Nation."—*J. E. D. Trask.*



Pencil Sketch by H. S. Kates